

Supl.c.B

A REVIEW

John Towning

OF THE

# REFERENCES

TO THE

# HORTUS MALABARICUS

OF

HENRY VAN RHEEDE VAN DRAAKENSTEIN.

212/26

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SEVERAL years ago I attempted to ascertain the names of the Plants which have been figured by Rheede and Rumphius in the Hortus Malabaricus and Herbarium Amboinense, and my late residence in London has enabled me to find materials, which nothing but the libraries and collections of the Metropolis can furnish, for settling many of the doubtful synonyms. I have here arranged the notes and remarks thus collected on the former of these Works, and the Hortus Malabaricus has now been so generally cited in all works on Botany for nearly a century and a half, that this Review can hardly fail to be of some use, particularly to the Students of Oriental Botany. Opposite to the number of each plate I have given, so far as I could collect them, the various synonymous names of the species to which the figure belongs, but more particularly those for which it has been quoted, and the names of the authors, when they have given a direct reference to the plate, are printed in Italics. In a paragraph below I have noticed those other references which I believe to be erroneous, and have offered a few occasional remarks on the species. Many of the notes were written at distant intervals, and some of the species have received much more attention, or been studied under more favorable circumstances, than others; but, even where the true and false synonyms have not been rightly distinguished, the convenience of having all the references to each plate brought together will equally remain. To my friend, Professor Don, I am indebted for the facilities he has afforded me for consulting the botanical treasures which the Linnean Society has placed under his care, and to Messrs. Loddiges my best thanks are due for a free access to the vast collection of Tropical Plants which flourish in their stoves.

L. W. DILLWYN.



### LIST

### OF ABREVIATIONS USED AND WORKS QUOTED.

A.DC	Alphonse De Candolle—on the Myrsineæ, in Transactions
	of Linnean Society, vol. xvii.
Arnott	On the Genus Rhizophora in the Annals of Natural History,
	and Author, jointly with Dr. Wight, of several other
70 .7	valuable Publications.
Bentham	Labiatarum, Genera and Species.
707	Scrophularineæ Indiceæ.
Blume	Bijdragen tot de Flora van Nederlandsch Indie.
	Floræ Javæ necnon Insularium adjacentium.
	Enumeratio Plantarum Javæ et Insularum adjacentium minus cognitarum vel novarum.
Bot. Mag	Curtis's Botanical Magazine.
The state of the s	
Self-reaching the self-reachin	Botanical Register.
	Botanical Repository.  Prodromus Flora Novæ Hollandiæ.
Brown R	On the Asclepiadeæ in Transactions of Wernerian Society,
	vol. i.
Ranguma	Civil and Natural History of Jamaica.
Burm	(1985년 1984년 1월 1986년 1987년 <u>19</u> 25년 일 [1984년 1월 1일 1984년 1월 1984년 1월 1984년 1984년 1984년 1984년 1984년 1984년 1984년 1
Durm	Flora Malabarica, sive Index in omnes Tomos Horti Ma-
	labarici. Ed. 1769.
	Index alter in omnes Tomos Herbarii Amboinensis.
	N. L. Burman (son of John Burman)—Flora Indica.
Cav	Cavanilles—Icones et Descriptiones Plantarum que aut
	sponte in Hispania crescunt aut in hortis hospitantur.
Colebrook	On the Indian Species of Menispermum in Transactions of
	Linnean Society, vol. xiii.
Correa	Correa de Serra-on some Genera of the Aurantiaceæ in
	the Transactions of the Linnean Society, vol. v.
D C	A. P. De Candolle-Prodromus Systematis Naturalis Regni
	Vegetabilis.
	Catalogus Plantarum Horti Botanici Monspeliensis.
Denn	
Desf	Desfontaines in Annales du Museum d'Histoire Naturelle.

Desr. ..... Desrousseaux in Encyclopedie Methodique.

Dillenius .... Hortus Elthamensis. Don. D. .... David Don-Prodromus Floræ Nepalensis. Don. G. .... George Don-General System of Gardening and Botany or History of Dichlamydeous Plants. Dryander .... Observations on the Genus Begonia in Transactions of Linnean Society, vol. i. Dun...... Dunal-Monographie des Anonacies Forster ..... Characteres Generum Plantarum. Florulæ Insularum Australium Prodromus. Gært. ..... J. and C. F. Gærtner-De Fructibus et Seminibus Plantarum. Supplementum Carpologie. Gaud. ..... Gaudichaud-Voyage autour du Monde du Capitaine Freycenet; partie botanique. Gmelin ..... Systema Naturæ. H. & G..... Hooker and Greville—Icones Filicum. Ham..... Dr. Francis Hamilton's Commentary on vols. i., ii., iii., & iv., of the Hortus Malabaricus in the Transactions of the Linnean Society. Ham. MS. .. Manuscript remainder of the above mentioned Work at the Linnean Society. H. Kew. .... Hortus Kewensis. Hooker ..... Sir W. J. Hooker-Exotic Flora. Botanical Miscellany, and other Works. Hort. Brit. . . Hortus Britannicus, edited by J. C. Loudon. Hunter..... Remarks on the Species of Pepper found in Prince of Wales's Island, in Asiatic Researches, vol. ix. Jack ...... Malayan Miscellany. On the Malayan Species of Melastoma and on the Cyrtandraceæ in Transactions of the Linnean Society, vol. xiv. Jacq..... N. J. von Jacquin-Observationum Botanicarum. Hortus Botanicus Vindobonensis. Icones Plantarum rariorum. Jones ..... Sir Wm. Jones-Botanical Observations on select Indian Plants in Asiatic Researches, vol. iv. Juss..... A. de Jussieu-De Euphorbiacearum Generibus Tentamen. Kampfer .... Icones Selectæ Plantarum quas in Japonia collegit.

Ker ...... Recensio Plantarum hucusque in Repositorio Botanicorum

Konig ..... C. Konig—on Ægiceras fragrans in Annals of Botany.

Konig's MS... J. G. Konig's Manuscripts in the Banksian Library at the

Kaulfuss .... Enumeratio Filicum.

depositum.

British Museum.

Lam..... Lamarck—Encyclopedie Methodique Botanique.

Illustration des Genres. Journal d'Histoire Naturelle.

Lehmann .... Plantæ Asperifoliæ Nuciferæ.

Lin. F. Z. .. Linnæus-Flora Zeylanica.

Lin. H. C. .. Linnæus-Hortus Cliffortianus.

Lin. Sp. Pl... Linnæus-Species Plantarum.

Lin. Syst. Nat. Linnæus-Systema Naturæ.

Lin. Mant. . . Linnæus-Mantissa and Mantissa Alter.

Lin. Supp. .. Supplementum Plantarum by the younger Linnæus.

Lind..... Lindley—Botanical Register.

Genera and Species of Orchidaceous Plants.

Loddiges .... Botanical Cabinet.

Loudon..... Arboretum et Fruticetum Britannicum.

Loureiro .... Flora Cochinchinensis.

Martyn G. . . Edition of Miller's Gardner's Dictionary.

Martyn I.... Historia Plantarum Rariorum.

Maton ..... On the Malabar Cardamon in Transactions of the Linnean Society, vol. x.

Muhlenberg.. Descriptio uberior Graminum et Plantarum Calamariarum Americæ septentrionalis indigenarum and cicurum.

N. Esen. .... Nees von Esenbeck—Monographs of Laurineæ and Acanthaceæ in Dr. Wallich's Plantæ Asiaticæ rariores. Monograph of the East Indian Solaneæ in Transactions of

the Linnean Society, vol. xvii.

Osbeck ...... Voyage to China and the East Indies.

Pers....... Persoon—Synopsis Plantarum.

Plukenet .... Plukenetii Opera.

Plumier .... Plantarum Americanarum, edited by Burman.

Poiret ..... Continuation of Lamarck's Encyclopedie Methodique Botanique.

Supplement to Lamarck's Illustration des Genres.

R. & S...... Romer and Schultes-Systema Vegetabilium.

Ray ...... Historia Plantarum.

Rees's Cyc. . . Rees's Cyclopædia.

Retz. . . . . Observationes Botanicæ.

Richard .... Monographie des Orchidees des Isle de France and de Bourbon, in Memoires de la Societe d'Histoire Natu-

relle de Paris, vol. iv.

Roscoe ..... Monandrian Plants of the Order Scitamineæ.

New Arrangement of the Scitamineæ in Linnean Transactions, vol. viii.

Roth, ..... Novæ Plantarum Species presertim Indiæ Orientalis.

Catalecta Botanica.

Rottb. ..... Rottboll-Descriptiones et Icones Plantarum rariorum.

Roxb. ..... Roxburgh's Hortus Bengalensis.

Plants of the Coast of Coromandel.

Flora Indica.

On the Scitamineæ in Asiatic Researches, vol. xi.

Rumphius.... Herbarium Amboinense.

Sabine ..... On the Generic and Specific Characters of Chrysanthemum Indicum, in Transactions of Linnean Society, vol. xiv.

Salisbury .... Paradisus Londinensis.

Schrader .... Sertum Hanoverianum.

Scheuchzer . . Agrostographia.

Schultes .... Mantissa Systema Vegetabilium.—See R. & S.

Smith ..... Sir J. E. Smith-Exotic Botany.

Botanical Articles in Rees's Cyclopædia.

Sprengel .... Systema Vegetabilium.

St. Hil...... Saint Hilaire—Exposition des Familles Naturelles.

Steudel ..... Nomenclator Botanicus.

Swartz ..... Observationes Botanicæ.

Synopsis Filicum.

Thunb..... C. P. Thunberg-Flora Japonica.

Botanical History of the Genus Dillenia in Transactions of

Linnean Society, vol. i.

Vahl ..... Enumeratio Plantarum.

Symbolæ Botanicæ.

Vent. ..... Ventenat—Jardin de la Malmaison.

Description des Plantes nouvelles du Jardin de Mons. Cels.

W. § A. .... Wight and Arnott—Prodromus Floræ Peninsulæ Indiæ Orientalis.

Illustrations of Indian Botany in the Companion to the Botanical Magazine and Annals of Natural History.

Wight ..... Contributions to the Botany of India.

Wall. ..... Wallich—Plantæ Asiaticæ rariores.

On Indian Plants in Asiatic Researches, vol. xiii.

Willd. ..... Willdenow-Species Plantarum.

Woodv...... Woodville-Medical Botany.



# HORTUS MALABARICUS.

# VOLUME I.

- Tab. 1. 2. Cocos nucifera. Lin.
  - $\left\{ egin{array}{lll} 5. \\ 6. \\ 7. \end{array} \right\}$  Areca Catechu. *Lin*. A. Faufel. *Gært*.
  - $\begin{array}{c} 9. \\ 10. \end{array}$  Borassus flabelliformis. Lin. Lontarus domestica. Gart.
  - 11. Caryota urens. Lin.
  - 12.
    13. Musa paradisiaca. Lin. M. sapientum. Roxb.
    14. M. sapientum.

Between M. paradisiaca and M. sapientum there is no specific difference, and of 44 varieties enumerated by Roemer and Schultes, this is the one which they have called Iminga.

- 15. Carica Papaya. Lin. Papaya Carica. Gært.
- 16. Bambusa arundinacea. Willd. Bambos arundinacea. Retz. Nastus arundinacea. Smith. Arundo Bambos. Lin.

Quoted erroneously by Roemer and Schultes for B. spinosa of Roxburgh.

- 17. Jambosa vulgaris. DC. Eugenia Jambos. Lin.
- 18. Jambosa malaccensis. DC. Eugenia malaccensis. Lin.
- 19. Michelia Champaca. Lin.
- 20. Mimusops Elengi. Lin.
  - In the Asiatic Researches, vol. iv., Sir W. Jones says, 'Since it must require the imagination of a Burman to discover in them a resemblance to the face of a man or an ape, the genus will I hope be called Bacula, by which name it is frequently celebrated in the Puranas, and even placed among the flowers of the Hindoo Paradise.'

- Tab. 21. Nyctanthes Arbor tristis. Lin. Parilium Arbor tristis. Gart.
  - 22. Cassia Fistula. Lin. Cathartocarpus Fistula. Persoon.
  - 23. Tamarindus indica. Lin.
  - 24. Garcinia Cambogia. *Lam.* Mangostana Cambogia. *Gært*. Cambogia gutta. *Lin*.
  - 25. Ficus glomerata of Roxb. Hamilton. F. racemosaVar. Lam. This figure has been quoted by Linnæus, Burman, Willdenow, and Sir J. E. Smith, and in the Hort. Britannicus and Hort. Kewensis, for F. racemosa; but Dr. Hamilton has shewn that two species have been confounded under this name, and that it is Roxburgh's F. glomerata.
  - Ficus Benjamina. Lin. Mant.
     Quoted by Vahl both for F. Benjamina and F. pyrifolia, and for the latter by Sir J. E. Smith.
  - 27. Ficus religiosa. Lin.
  - 28. Ficus bengalensis. Lin. F. indica. Roxb. not Lin.

Roxburgh of this plant says, 'I know of no other species of Ficus which sends forth fibres from the branches that descend to the ground and become trunks,' and this may perhaps have led him to arrange it as F. indica, for it is the only species which Linnæus has described 'ramis radicantibus.' There are, however, other species which are at least sufficiently radicant to answer the Linnean character, as F. tomentosa and F. infectoria; nor can this tendency mark any specific difference, for Dr. Hamilton, even of Roxburgh's F. indica says 'that it does not throw out roots from its branches when planted in confined situations and excluded from a free circulation of air.'—See Lin. Trans. xv. p. 133.

- 29. Thespesia populnea. Correa. Malvaviscus populneus. Gært. Hibiscus populneus. Lin.
- 30 Paritium tortuosum. Hibiscus tortuosus. Roxb.

This figure is referred to for No. 259 of the Flora Zeylanica, and also by Dr. P. Brown for a native of Jamaica, and these two species have been blended together with the name of *Hibiscus tiliaceus* in the Species Plantarum. By most subsequent authors, except Roxburgh, the Malabar plant has been quoted for *H. tiliaceus* or *Paritium tiliaceum*, but the name (derived probably from Plumiers) should be confined to the American species, and the *H. tiliaceus* of Roxburgh, if distinct from *H. tortuosus*, is a third species from the Molucca's.

31. Gossypium arboreum. Lin.

No author has questioned the propriety of Linnæus' reference to this figure except Roxburgh, who suspects that it may be G. religiosum of Gærtner, and Sir J. E. Smith, in Rees's Cyclopædia, observes, that the Linnean G. religiosum is a very doubtful species. It is quoted by Dr. Hamilton for the variety of G. arboreum, which he has called G. nigrum, and the Doctor has recorded his persuasion, 'that what in general are called species of Gossypium are mere varieties, differing vastly less than the varieties of Cabbage (Brassica Oleracea) reared in our Gardens.'—Lin. Trans. xiii. p. 491.

- 32. Bauhinea variegata. Lin.
- 33. Bauhinea purpurea. Lin.

- Tab. 34. Bauhinea acuminata. Lin.
  - 35. Bauhinea tomentosa. Lin.
  - 36. Hydnocarpus inebrians of Vahl. W. & A. Chilmoria pentandra. Hamilton. Munnicksia laurifolia. Denn.
  - 37. Strychnos Nux vomica. Lin.
  - 38. Phyllanthus Emblica. Lin. Emblica officinalis. Gært.
  - 39. Cerbera Odalam. Burman.

Most authors have followed Linnæus in quoting this fig. for C. Manghas, but Gærtner has pointed out a difference, and it first received the present name from the elder Burman in the Index to the Hortus Malabaricus, which he published in 1769.

40. Lawsonia spinosa. Lin. L. alba. Var. Lam. Alcanna spinosa. Gært.

Lamarck has changed the trivial name to alba, and quoted this figure for a variety 'ramulis subspinescentibus.'—It is quoted by Roxburgh for L. inermis, but he admits that L. inermis and L. spinosa belong to the same spicies, and Dr. Hamilton, in the same hedge, has observed plants in all degrees, 'some having a great many branches ending in thorns, some only a few, and some none at all.'

41. Gmelina arborea. Smith.

Misquoted by Linnæus for Bignonia Catalpa.

42. Trevia nudiflora. Lin.

43. Bignonia indica. Lin. Calosanthes indica. Blume.

In the description of this figure Rheede has inadvertently called it 44, and in like manner has described the following table as 45 instead of 44, and so on with the remaining numbers up to 51, which has given rise to much uncertainty and irregularity in the references to these plates. In the Hortus Britannicus it is misquoted for B. indica, and also for Spathodea Rheedii.

44. Bignonia longifolia. Willd. B. paianelia. Hamilton. B. indica Var. Lin. Calosanthes indica Var. G. Don.

By Roxburgh this figure has been quoted jointly with table 43 for B. indica, and by Linnæus, Burman, and Lamarck, for a variety of that species.

45. Alstonia Pala. Echites? Pala. Hamilton.

Mistaken by Linnæus for Tabernæmontana citrifolia, and has been generally quoted by Lamarck and other authors for the Linnean Echites Scholaris (i. e. Alstonia Scholaris of Brown), but though nearly allied to E. scholaris, Dr. Hamilton considered it to be distinct from the Lignum Scholare of Rumphius. Though there is an error in his reference, it is plain that the Linnean E. scholaris and T. citrifolia were considered by the elder Burman to be the same, but of the latter, as originally described in the Hortus Cliffortianus, it is said 'crescit in America.'

46. Tabernæmontana alternifolia. Lin.

Linnæus has obviously constituted his T. alternifolia entirely from this figure, and on a supposition that the alternate disposition of its leaves is a mere error of the Draughtsman, it has been quoted by Roxburgh for his T. crispa, and Mr.

Brown has noticed its affinity with the New Holland T. orientalis. Mr. G. Don, however, suspects that it belongs to the same species as vol. ii. t. 54, which he has quoted with a query for his Wrightia Rothii, and again for T. coronaria.

### Tab. 47. Holarrhena Codaga. G. Don.

Misquoted by Burman in the Flora Indica both for Nerium antidysentericum and Tabernæmontana citrifolia of Linnæus, and it has been referred to by Linnæus, Lamarck, and most other authors, for the former. Mr. Brown, in the Transactions of the Wernerian Society, vol. i. p. 74, has suggested that it belongs to Holarrhena. In the Linnean Transactions, vol. xiii., Dr. Hamilton has queried whether it may not be his E. pubescens, which appears from the description to have much affinity with Wrightea antidysenterica, and by Mr. G. Don this figure is quoted with a query for the latter species as well as for H. Codaga.

48. Trophis aspera of Retz. Roxb. Epicarpurus orientalis. Blume.

Quoted erroneously by Linnæus, Willdenow, and Lamarck, for *Morus indica*, and by the younger Burman, in his Flora Indica, both for that species, and also for *Ceanothus asiaticus*.

49. Sterculia Balanghas. Lin.

Quoted by Salisbury for his Southwellia Nobilis, i. e. Sterculia nobilis of Smith, and for Sterculia rubiyinosa, by Ventenat and Smith, but it accords at least equally with S. Balanghas, for which it is more generally referred to.

50. Spondias mangifera of Willd. Smith. S. amara. Lam. S. mangifera Var. D C. Mangifera pinnata of Lin. Sup.

As remarked by Dr. Hamilton, it is probable that amara is a misprint, and that amra is the name which Lamarck gave to this species, for it is called amra in Hindostan, and is described with the name of Amra taca in the Asiatic Researches.

- Agati grandiflora. DC. Sesbania grandiflora. Persoon. Coronilla grandiflora. Willd. Æschynomene grandiflora. Lin.
- 52. Morinda citrifolia. Lin.
- 53. Premna? cornutioides. Hamilton in Lin. Trans. xiii. p. 538. It is misnamed Santalum album in Dennstedt's Schlussel.
- 54. Indigofera tinctoria. Lin. I. indica. Lam.
- 55. Tephrosia purpurea. W. & A. Tephrosia Colonila. Hamilton. Galega purpurea of Lin.

Quoted with a query by Lamarck for a variety Galega tinctoria, and Dennstedt considered it to be the Indigofera Anil of Linnæus.

56. Grewia Microcos. Lin. Microcos paniculata. Lin.

Quoted in the Species Plant. for Microcos paniculata, and in the Syst. Nat. Linnæus has removed the species to Grewia.

 Cinnamomum Zeylanicum Var. N. Esen. C. Cassia. Hort. Brit. Laurus Cassia. Lin.

Roxburgh has quoted this figure for his Laurus Cassia, which Von Esenbeck considers to be different from the Linnean species, and the former is referred to by Esenbeck, together with Cinnamomum Cassia of Dons Prodromus, for his Cinnamomum albiforum.

# HORTUS MALABARICUS.

### VOL. II.

#### Tab. 1. Pandanus fascicularis. Lam.

Most authors have followed Willdenow in quoting this figure jointly with t. 2, 3, 4, and 5, for *Pandanus odoratissimus*, and it is quoted separately by Burman for his *Bromelia sylvestris*, which is the same species; but, as remarked by Dr. Hamilton, Rheede's name for this plant, equally with tab. 6, is 'Kaida taddi,' and it is *P. fascicularis*, with the Drupæ less advanced towards maturity.

2. Pandanus odoratissimus. Lin. Sup. Athrodactylis spinosa. 4. Forster.

Both Linuæus and Forster have quoted tab. 1 to 8 for this species.

- 6. Pandanus fascicularis. Lam.
- 7. Pandanus unipapillatus. Denn.

Dr. Hamilton says that this is evidently a distinct species of Pandanus not yet noticed by modern authors, and Dennstedt's knowledge of it is probably wholly derived from the Hortus Malabaricus.

- 8. Pandanus furcatus. Roxb. P. spinufructus. Denn.
- 9. Winterlia aromatica. Denn.

This figure has been generally misquoted instead of t. 10, for *Unona Narum*, and it is called 'Winterlia aromatica mihi,' by Deunstedt, but may probably be an undescribed species of Limouia.

10. Uvaria Narum. W. & A. Unona Narum. Dunal.

Burman, Willdenow, Sir J. E. Smith, and most other authors, have followed Linnæus in quoting this figure erroneously for *Uvaria Zeylanica*.

- 11. Vitex trifolia. Lin.
- 12. Vitex negundo. Lin. V. trifolia. Var. Lam.
- 13. Ixora coccinea. Lin. I. grandiflora. Bot. Reg. Pavetta coccinea. Blume.

Quoted by De Candolle for the *I. Bandhuca* of Roxburgh, which is very nearly allied to *I. coccinea*, and in the color of the flower, as described by Rheede, this plant differs somewhat from either of these. *I. coccinea* of the Botanical Magazine, t. 169, is a different species.

### Tab. 14. Ixora alba. Lin. I. fulgens. Var? DC.

Sir J. E. Smith (in Rees's Cyc.) has shewn that Linnæus derived all his know-ledge of *I. alba* from Rheede's Description, and it is most probably a pale variety either of *I. fulgens*, or some other red flowered species.—*I. alba* of Roxburgh (see Bot. Reg. t. 100), is a different plant, and Roxburgh with a mark of doubt has quoted this figure for *I. barbata*; by Roemer and Schultes it is quoted both for *I. alba* and for *I. incarnata* of Roxburgh, but there is no species with this name in the Flora Indica; by Lamarck for his *I. lanceolata*, which answers to the *I. fulgens* of Roxburgh, and by Wight and Arnott with a query for a variety of Roxburgh's *I. lanceolaria*.

- 15. Memecylon grande of Retz. Smith. M. amplexicaule. W. & A.
- 16. Briedelia scandens. Roxb.

Erroneously quoted by Linnæus and Willdenow for Clutia retusa, and by Lamarck for his C.squamata, which he suspects may be the Linnean C. retusa.

B. scandens in the Plants of Coromandel is figured with the name of Cluytia scandens, and this plate in the late General Hardwick's Copy is marked 'Andrachne Donky-boora of Roxburgh,' which latter is its Telinga name.

17. Hibiscus Rosa Sinensis. Lin. flore pleno.

Rheede has figured the flowers in their more natural state in vol. vi. t. 43.

18. Mussænda Belilla. Hamilton.

Quoted for M. frondosa, by Linnæus and most other authors, and by Smith for the M. glabra of Vahl; the latter, however, belongs rather to the M. Dovinia of Hamilton, and Wight and Arnott have queried whether either of these is more than a variety of M. frondosa.

- 19. Hugonia Mystax. Lin.
- 20. Justicia Ecbolium. Lin.

Though generally quoted for J. Ecbolium, it does not well answer to the Linnean character.

- 21. Justicia Betonica. Lin.
- Guilandina Bonduc of Lin. W. & A. G. Bonducella. Lin.
   Wight and Arnott have quoted this figure for the Linnean G. Bonduc, and have ascertained that G. Bonducella is the same species.
- Stylocoryne Webera. W. & A. Cupia corymbosa. DC.
  Webera corymbosa. Willd. Rondeletia asiatica. Lin.
  See the note on vol. iv. t. 28.
- 24. Vernonia anthelmintica. Willd. Serratula anthelmintica. Roxb. Ascaricida anthelmintica. Hort. Brit. Conyza anthelmintica. Lin.
- 25. Clerodendrum villosum. Blume.

Misquoted by Linnæus and Willdenow for C.infortunatum, by Roxburgh for Volkameria infortunata, and for C.viscosum by Ventenat, and in the Hortus Kewensis and Botanical Magazine (t. 1805), and from these species C.villosum differs in having the leaves very entire.

### Tab. 26. Gilibertia Nalagu. DC. Gastonia Nalagu. Lam.

This figure is quoted by Willdenow for Aralia Chinensis; for Leea crispa, by Roxburgh; for Gastonia Nalagu, by Lamarck; for Leea sambucina and Gilibertia Nalagu, by De Candolle; for Aralia Chinensis, Leea sambucina, and again as a Gastonia, in Rees's Cyclopædia; for Leea Staphylea of Roxburgh, by Wight and Arnott; and Dr. Hamilton suspected that it might be Leea aequata of Linnæus's Mantissa!

### 27. Phyllanthus scandens of Roxb. Herb.

In Gen. Hardwick's Copy of the Hortus Malabaricus, this plate is marked 'Phyllanthus scandens of Roxburgh,' and it answers by far better to a specimen which is so named in Roxburgh's Herbarium, than to the P. rhamnoides either of Retzius or Willdenow, for the latter of which it is arranged by Dennstedt.—Rheede has figured two plants, vol. ii. t. 27, and x. t. 27, with the name of Niruri, and it is rather singular that the P. Niruri of Lin. should not be either of these, but x. t. 15, which is the Kirganeli, and again that the P. Kirganelia of Willdenow should be a plant unknown to Rheede.—See my note on x. 27.

### 28. Daltura alba. N. Esen. in Lin. Trans. xvii. p. 73.

Other authors have followed Linnæus in quoting this figure for *D. Metel*, with which it has been generally confounded, and Von Esenbeck has shewn good cause for considering it to be distinct from the *D. metel* which grows on the coasts of Africa.

### 29. Datura dubia. Persoon.

In the Copy of the Hortus Malabaricus at the Linnean Society, this plate is marked D. glabra, but though the capsule is quite unarmed in the figure, it may be queried from Rheede's Description whether this of itself can be relied on for a specific character, and Poiret appears to have met with a variety 'capsulis muticis' of D. fastuosa.—Burman in his Index has erroneously referred to tab. 28, 29, and 30, for D. Metel, and by De Candolle and some other authors, tab. 29 is accidentally quoted instead of tab. 19 for Huyonia Mystax.

## 30. Datura dubia of Persoon. Var. flore triplici.

Dr. Hamilton suspected that this may be the Linnæus D. fastuosa, but it has not been otherwise referred to for that species, and the unarmed capsule and simple leaves denote its affinity with D. dubia.

# 31. Calotropis gigantea. Hort. Kew. Asclepias gigantea. Lin. Asclepias gigantea. Var. Lam.

The Bel Ericu, which Rheede has described separately, is a variety with white flowers.

### 32. Ricinus communis of Lin. Burman.

The Pandi Avanacu, of which Rheede has annexed a description, is the R. viridis of Willdenow.

- 33. Croton Tiglium. Lin.
- 34. Tragia Chamælea. Lin. Cnemidostachys Chamælea. Hort. Brit. Euphorbia bifurca. Ham. MS.?
- 35. Solanum ferox of Lin. Burman. S. lasiocarpum. Dunal. S. hirsutum. Roxb.

This figure has been quoted by Burman and Esenbeck for the Linnean S. ferox, and the plate is so marked in Sir W. Jones's Copy at the Athenæum.

### Tab. 36. Solanum indicum of Lin. Burman. S. violaceum. Jacquin.

Linnæus, under the name of S. indicum, has confounded two species, of which one is an East and the other a West Indian plant. The former, which is the S. indicum of Roxburgh and Esenbeck, is Jacquin's S. violaceum, and Dunal has retained the Linnean name for the latter. Dennstedt erroneously considered this plant of Rheede's to be the Linnean S. sanctum.

37. Solanum Melongena Var. N. Esen.

Quoted by Lamarck for his S. undatum, which most probably is another variety of S. Melongena.

- 38. Hibiscus Abelmoschus. Lin. Abelmoschus moschatus. W. & A.
- 39. Tragia involucrata. Lin.

Though quoted by Linnæus, Willdenow, Roxburgh, and others for T. involucrata, Dr. Hamilton thought it more likely to be the T. hispida of Willd., and the latter is considered by Roxburgh to be probably nothing more than a variety of the former.—The leaves are more ovate than cordate, and under the head of Urtica pilulifera in Rees's Cyclopædia, Sir J. E. Smith expressly says that this figure is T. involucrata.

- 40. Boehmeria interrupta. Willd. Urtica interrupta. Lin.
- 41. Urtica heterophylla. Vahl.
- 42. Euphorbia Antiquorum. Lin.
- 43. Euphorbia Nivulia. Hamilton. E. nereifolia. Roxb.

For E. nereifolia Linnæus has quoted Rumphius, iv.t. 40, together with the present figure of Rheede's and the former is the E. ligularia, and the latter the E. nereifolia of Rosburgh. Both these species have been described by different authors for E. nereifolia, and, to prevent confusion, Dr. Hamilton has changed the name.

- 44. Euphorbia Tirucalli. Lin.
- 45. Barleria longifolia of Lin. Lam. Ruellia longifolia. Roxb.

In Esenbeck's New Arrangement of the Acanthaceæ, B. longifolia is removed to a separate genus, with the name of Asteracantha.

46. Hygrophila obovata. Hamilton. Ruellia obovata. Roxb.

The younger Linnæus has described his Ruellia difformis 'foliis linearibus,' and queried, without any sufficient grounds, whether this plant of Rheede's may not be a variety.

47. Barleria bispinosa of Vahl. N. Esen. B. cristata Var. Lam. B. buxifolia. Roxb. (not Lin.) B. obovata. Hamilton.

Quoted by Linnæus and most other authors for B.buxifolia; but under that name Linnæus has obviously confounded this plant with an American Barleria, and the name in Dr. Hamilton's opinion more probably belongs to the latter.

48. Dilivaria Ilicifolia of Juss. Persoon. Acanthus Ilicifolius. Lin.

Tab. 49. Ludwigia diffusa. Hamilton. Jussiwa caryophyllwa. Lam.

Quoted in the Species Plantarum both for Ludwigia perennis and for Jussica suffruticosa; but, in the Mantissa, Linnæus has cancelled the reference to the former, and it is a very uncertain species. Dr. Hamilton's definition of his L. diffusa is not happily expressed 'capsulis subpedunculatis folio dimidio brevioribus;' and, from a comparison of authentic specimens, I much doubt whether it is more at most than a variety of Roxburgh's L. parviflora. By Sir J. E. Smith this figure is erroneously quoted for the American Jussica erecta.

Jussiwa suffruticosa of Lin. Burman. J. villosa. Lam. J. exaltata. Roxb.

As is above remarked, the Carambu, t. 49, is quoted in the Sp. Plant. both for Ludwigia perennis and for J. suffruticosa, and by his erroneous reference to Rumphius for the latter species in the Syst. Nat., Linnæus has encreased the confusion. The younger Burman, in the Flora Indica, has referred to this, tab. 50, as a variety of J. suffruticosa, and in his Father's Index it was subsequently quoted for the alpha of that species, in which arrangement he has been followed by Sir J. E. Smith and Dr. Hamilton.

- 51. Jussiæa repens. Lin.
- Cassia Sophera. Lin. Senna Sophera. Roxb. Chamæfis-52. tula Sophera. G. Don.
- Cassia Tora of Lin. Var. W. & A. C. Tagera. Lam. & DC. 53. (not Lin.)

Linnæus, with a query, has quoted this figure, and used Rheede's name (Tagera) for a very different species of Cassia, and the Linneau name has therefore been changed from C. Tagera to C. ciliaris. Of Lamarck's C. Tagera and of C. ciliaris, all our knowledge appears to have been derived in the former case from Rheede, and in the other from a short description in the Species Plantarum; and Drs. Wight and Arnott, from an examination of the specimen of C. Tagera, in the Linnean Herbaricum, suspect that the latter may be the C. tenella of De Candolle.-See Prodromus's Floræ Peninsulæ Indiæ Orientalis, p. 291.

54. Tabernæmontana coronaria. Roxb. T. divaricata. R. & S. Nerium coronarium. Willd. Nyctanthes acuminata. Burman.

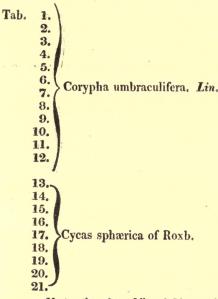
It has been ascertained by Mr. Brown that this is the Linnean N. divaricatum, and its mark for a biennial in the Species Plantarum must therefore be erroneous. In Don's Dictionary, this t. 54 is quoted both for T. coronaria and for Wrightia Rothii.

Capsicum frutescens of Lin. R. & S.

Misquoted by Burman for C. annuum, and I am ignorant of Dennstedt's meaning in calling it C. Sinense of Linnæus. This is certainly C. frutescens of the Hortus Cliffortianus, p. 60, but Linnæus subsequently omitted the reference to Rheede in the Species Plantarum, which may have thrown some doubt on his intentions. med have

# HORTUS MALABARICUS.

### VOL. III.



Most authors have followed Linnæus in quoting these figures jointly with Rumphius, i. t. 22 and 23, for Cycas circularis, but Roxburgh has arranged them separately, and they appear to me to be distinct.

Dr. Hamilton suspects that this is nothing more than the Linnean Phanix ductylifera in a wild uncultivated state, but it is arranged as a separate species in the Flora Indica.

26. Artocarpus integrifolius of Lin. Supt. Willd. Artocarpus Jaca. Var. Lam. Sitodium cauliflorum. Gært.

Artocarpus Jaca is Lamarck's name for this species, and he considered Rumphius, i. t. 31, to be the Linnean A. integrifolius, and Rheede's plant to be a variety.

- Tab. 29. Annona squamosa. Lin.
  - 30. Annona reticulata. Lin.
    - A. reticulata, in the Species Plantarum, is described to be a native of America, and a reference to Rheede has been added in the Systema Naturæ. I have only seen a Jamaica plant, which differed considerably from these figures, but they have been quoted by almost every author for A. reticulata, and the difference may perhaps be attributed to the growth in a different climate.
  - 32. Artocarpus hirsuta. Lam. A. pubescens. Willd.
  - 33. Nauclea Cadamba. Roxb. N. citrifolia. Poiret.

Quoted by Linnæus, Gærtner, and most other authors, for N. orientalis, with which this species appears to have been formerly confounded; and in the Hortus Britannicus it is quoted both for N. orientalis and for N. Cadamba. It is considered by Wight and Arnott to be N. purpurea, rather than N. Cadamba of Roxburgh; but Rheede has described the flower to be yellow.

34. Psidium pyriferum. Lin.

Dr. Hamilton says that tab. 34 and 35 belong to the same species, and I have seen West India plants of *P. pyriferum* or *pomiferum*, with the fruit of an intermediate shape.

- 35. Psidium pomiferum. Lin.
- 36. Careya arborea. Roxb.

Quoted by Dennstedt for the Psidium montanum of Swartz.

- 37. Aegle Marmelos of Correa. Roxb. Cratæva Marmelos. Lin.
- 38. Dillenia indica. Lin. D. integra of Thunberg.

Most authors have followed Thunberg, who has quoted these figures (the Syalita of Rheede) together with D. indica of Linnæus for his D. speciosa, but Rheede has represented the leaves to be nearly entire, and this plant has altogether more affinity with the D. integra of Thunberg. Linnæus first constituted the species in the Hortus Cliffortianus, where there is no mention of any Serratures, and all his references are either directly to, or belong to, the Syalita; but to these Synonyms, in the Species Plantarum, he has added the Songium of Rumphius, which much resembles the D. speciosa, and this may have led to the long continuance of the error in considering the D. indica and D. speciosa to be the same. The Songium is, however, quoted for a separate species, with the name of D. elliptica, by Thunberg. There is no specimen of D. indica in the Linnean Herbarium, and all the specimens that I have seen of D. speciosa accord with Roxburgh's Description in having the leaves 'most regularly sharp-serrate.'

- 40. Sonneratia acida of Lin. Sup. Willd. Rhizophora caseolaris. Lin. Sp. Plant.
- 41. Diospyros Embryopteris. Persoon. D. glutinosa. Roxb. Garcinia malabarica. Desrousseux.
  - It is D. glutinosa of the Flora Indica; but Roxburgh, in his Plants of Coromandel, has described it with the name of Embryopteris glutinifera, and in Don's Dictionary the species is erroneously called E. gelatinifera. The leaves,

as represented in this figure, are considerably broader and more obtuse than in any specimen that I have met with, but Dr. Hamilton has remarked that they vary much in shape.

#### Cratæya Nurvala. Hamilton in Lin. Trans. xv. p. 142. Tab. 42.

This figure is misquoted by Linnaus for C. Tapia, and by Willdenow for C. religiosa. It is also quoted by Roxburgh for his Capparis trifoliata (which is synonymous with Cratæva religiosa), but Dr. Hamilton has ascertained that it is a distinct species.

- $\frac{43.}{44.}$  Averrhoa Carambola. Lin.
- 45. Averrhoa Bilimbi. Lin.
- 47. Phyllanthus longifolius. Roxb. Averrhoa acida. Lin.

Quoted by Linnæus for A. acida, and his Cicca disticha, as well as Phyllanthus longifolius of Jacquin and Roxburgh (not of Lamarck), is the same species. Dr. Hamilton thought that Rheede's Plant is the P. Cheramela rather than the P. longifolius of Roxburgh, but there can be no doubt that P. Cheramela of the Hortus Bengalensis is P. longifolius of the Flora Indica.

- 49. Eriodendron anfractuosum. D.C. Bombax pentandrum. Lin. Gossampinus alba. Hamilton.
- Bombax malabaricum. DC. B. heptaphyllum. Roxb. (no Lin.) Gossampinus rubra. Hamilton.

Misquoted by Linnæus for B. Ceiba, and by Burman and Willdenow for the Linnean B. heptaphyllum; both of which in all probability are exclusively American plants.

Mesua ferrea. Lin. M. speciosa. D C. 53.

De Candolle has followed Burman in arranging this plant of Rheede's and of the Herb. Amb. vii. t. 2, as separate species, and he has, as I think, erroneously retained the Linnean name for the latter. Sir W. Jones has used Nagacesara instead of Mesua for the generic name, and in the Asiatic Researches says, "Surely, the genuine appellation of an Indian plant should be substituted for the corrupted name of a Syrian Physician, who could never have seen it; and if any trivial name was necessary to distinguish a single species, a more absurd one than Iron could not possibly have been selected for a flower with petals like silver and anthers like gold."

Anacardium occidentale, Var. indicum. DC.

Quoted by Linnæus for A. occidentale, but there is a considerable difference bctween the East and West India Nuts, and it is probably a distinct species.

- 55. Figure nitida. Willd.
- 56. Ficus undulata? Hamilton in Lin. Trans. xv. p. 133.

Quoted with a query by Willdenow and Poiret for F. terebrata, by Lamarck for his F. pyrifolia, and by Martyn for F. pertusa, and I have not noticed any reference to this uncertain figure without a mark of doubt.

### Tab. 57. Ficus cotoneæfolia. Vahl.

Quoted by Linnæus, Burman, Lamarck, and Sir James Smith, for F. indica; by Willdenow and Persoon, and with a mark of doubt by Dr. Hamilton, for F. citrifolia; and by Persoon and Ræmer and Schultes for the F. cotoneæfolia of Vahl. In Sir W. Jones's copy at the Athenæum this plate is marked 'F. indica citrifolia.'

- 58. Ficus excelsa. Vahl.
- 59. Ficus septica. Burman.
- 60. Ficus asperrima. Roxb.

Quoted by Burman and Dennstedt for F. Ampelos; but Sir J. E. Smith, in describing that species, says of this figure, that 'the leaves are too small, and the fruit unlike our specimen,' and he then suggests that it may be F. politoria of Loureiro, but Loureiro has described the fruit of his species to be in spikes.

## 61. Ficus Perim teregam. Burman. F. hispida. Blume (not Lin.)

All modern authors, except Blume, have quoted this figure with a mark of doubt; some for F. oppositifolia, some for F. symphitifolia, and others for F. hispida. By Blume it is quoted for the latter, and it may possibly be the tree which he met with, but the Linnean F. hispida, from the description in the Supplementum Plantarum, must be quite different. In Burman's Index the Caprificus viridis of Rumphius, which he considered to be the same as this plant of [Rheede's, is marked F. Perim teregam, with the addition of HML (Hort. Mal. Lin.?), and it may perhaps be inferred, that he was aware of Linnæus's intention to describe the species with that name. It, however, appears to be uncertain whether the Perim teregam of Rheede and the Caprificus viridis of Rumphius are the same species, though the identity is strongly asserted by Burman, and Blume has quoted the latter for his F. Ribes.—See Rumphius, vol. iii. p. 153.

## 62. Ficus heterophylla of Lin. Sup. Lam.

It is quoted by Willdenow for F. aquatica, and by Vahl and Sir J. E. Smith for F. rufescens, both of which are probably synonymous with F. heterophylla, and for the latter by Lamarck, Persoon, and Roxburgh. In Gen. Hardwicke's copy this plate is marked 'F. humilis, Banksii MSS.—F. heterophylla. Konig.'

## 63. Ficus amplissima. Smith. F. Tsjela. Roxb.

This, according to Burman, Willdenow, Vahl, and the Hort. Kew., is the Linnean F. indica, but Linnæus has only quoted Rheede's figure jointly with some American Fici for a variety of that species.

# 64. Ficus infectoria. Willd. F. venosa. Smith. F. Tsjakela. Burman.

F. venosa of Willdenow, for which Dennstedt has quoted this figure, is a different species.

# HORTUS MALABARICUS.

#### VOL. IV.

- Tab. 1.  $\left\{\begin{array}{ll} 1. \\ 2. \end{array}\right\}$  Mangifera indica. Lin.
  - 3. Terminalia Catappa. Lin.
  - 5. Myristica dactyloides. Gært. M. malabarica. Lam.

Willdenow considered this to be his M. tomentosa; but Sir J. E. Smith (in Rees's Cyc.) has remarked, that, unless Rheedc's figure is inaccurate, it must be a distinct species. Rheede has obviously described the branch of a female plant; and may not the panicle which he has figured separately belong to the male?

6. Barringtonia racemosa. Roxb. Stravadium racemosum. Juss. Stravadia alba. Persoon. Eugenia racemosa. Lin.

Misquoted by Gærtner for Barringtonia speciosa.

Barringtonia acutangula. Gært. Stravadium acutangulum.
 Juss. Stravadia rubra. Persoon. Stravadium rubrum.
 DC. Eugenia acutangula. Lin.

8.

Quoted by Linnæus, in the Flora Zeylanica, for the Maharatombola, which is a species taken from Burman's Thesaurus, and not noticed in his other works. Dr. Hamilton has suggested that it may belong to the genus Scopolia of Forster, but it is quoted with a query by Dennstedt for Eugenia paniculata of Lamark (i.e. Sygygium paniculatum of De Candolle); and Professor Don thinks, though the description may do for Scopolia, that the figure more resembles some Myrtaceous plant.

9. Holigarna lougifolia. Roxb. Mangifera? racemosa. Lam. Hadestaphylum causticum. Denn.

The 'Bibo,' which Rheede, at p. 20, has described as a variety, and which Dr. Hamilton has quoted, instead of this figure for *H. longifolia*, was considered by Roxburgh to be Semecarpus Anacardium.

10. Terminalia Belerica. Roxb. Myrobalanus Bellerica. Gart.

Dr. Hamilton suspected that this may be a species distinct from T. Belerica, for which he has proposed the name of T. Taria (Tania?), but I cannot discover any grounds for thinking so. By Dennstedt it is erroneously quoted for the Gmelina parvifora of Roxburgh.

### Tab. 11. Rumphia Amboinensis. Lin. R. Tiliæfolia. Poiret.

Although the description in the Genera Plantarum does not well accord with Rheede's description and figure, it appears to me that the genus Rumphia has been wholly derived from them, and that all the subsequent descriptions of R. Amboinensis and R. Tiliæfolia, as well as the figure in Lamarck's Illustrations, have been taken from the same source, nor can I find a specimen under either name in the Linnean or any other Herbarium.

12. Atalantia monophylla of D.C. W. & A. Limonia monophylla. Roxb.

This figure may probably have been intended for A. monophylla, but, particularly in the fruit, it is far from accurate.

13. Randia dumetorum of W. & A. Gardenia dumetorum. Kænig's MS.

It is quoted in Kœnig's MS. for Gardenia dumetorum, and there are specimens of Randia or Posoqueria dumetorum at the Linnean Society, which answer to this figure. Wight and Arnott say that the whole habit of the plant is extremely variable, according as it grows in a poor or rich soil, and Gardenia spinosa of Lin. Sup. is most probably the same species. In Burman's Index it is erroneously called Punica granatum, and by Dennstedt it is called 'Limonia torulosa, mihi,' but it cannot belong to the Hesperideæ.

14. Limonia acidissima. Lin. L. crenulata. Roxb.

Linnæus has occasioned some confusion by quoting the Anisifolium of Rumphius jointly with this figure for his L. acidissima, and their resemblance to each other is chiefly confined to the foliage. The former is Feronia elephantum of Correa.

- 15. Vateria indica. Lin. Elæocarpus copalliferus. Willd.
- 16. Milnea edulis of Roxb.? Nyalelia racemosa. Denn. In some respects it answers better to M. montana of Dr. Jack in Lin. Trans. xiv. p. 117, but that species is described to be digynous.
- 17. Alangium decapetalum. Lam. Roxburgh describes the flower to be six or seven petalled, and strongly suspects that this is only a variety of A. hexapetalum.
- 18. Briedelia horrida. Heydia horrida. Denn.

  I have the authority of Professor Don for considering this to be a Briedelia, and it is most probably a species allied to the B. spinosa of Roxburgh, which no other author besides Rheede has met with.
- 19. Sapindus trifoliatus. Lin. S. laurifolius. Vahl.
- 20. 21. Lagerstroemia Reginæ. Roxb. Adambea glabra. Lam.
- 22. Lagerstroemia hirsuta. Willd. Adambea hirsuta. Lam.

  It is remarked by Wight and Arnott, that this plant 'has hitherto been only seen by Rheede, and known by his figure and description.'
- 23. Xanthophyllum flavescens of Roxb. Blume. Kaulfussia geminiflora. Denn.

### Tab. 24. Elæocarpus oblongus. Gært. E. Perim-kara. DC.

Quoted by Linnæus, Burman, Willdenow, and Roxburgh for E. serratus, and it is at least more nearly allied to the Ganitrum oblongum of Rumphius, which is the E. oblongus of Gærtner. In Rumphius's figure the leaves are, however, entire, though he has described them to be 'obscure et ample dentata,' and De Candolle may have been misled by the figure to describe E. oblongus 'foliis integerrimis,' and to arrange this plant of Rheede's as a separate species.

### 25. Mimusops Kauki of Lin. Roxb. M. manilkara, G. Don.

For M. Kauki Linnæus has only quoted the Herb. Amb. vol. iii. t. 8; and the flowers in Rumphius's plate appear to be mere copies from this figure of Rheede's. I take Roxburgh's M. Kauki, with somewhat pointed leaves, to be the Linnean species, and Achras dissecta of the Supplement, for which Willdenow has quoted this figure, to be Roxburgh's M. hexandra, with the leave emarginate, and the large branch here figured belongs to the former, while it is not improbable that the flowers which Rheede has separately added may be those of M. hexandra. Sir W. J. Hooker (Bot. Mag. t. 3157) has quoted this figure for M. dissecta (M. hexandra?), and has queried whether it is more than a variety of M. Kauki. In like manner this figure has been quoted by Lamarck for M. obtusifolia, and by Gmelin for Achras Balata (i. e. M. Balata), and it appears to me to be very doubtful whether they together constitute more than one, or at most two, species. Mr. G. Don has, however, arranged all the five separate, and to these he has added Rheede's plant as a sixth species, with the name of M. Manilkara.

- 26. Alangium hexapatalum. Lam.
- 27. Tectona grandis. Lin. Sup. Tectona Theka. Loureiro. Theka grandis. Lam.
- 28. Wendlandia Notoniana of Wallich?

Dr. Hamilton has queried whether this figure should not be referred to instead of vol. ii. t. 23, for the Webera corymbosa of Willdenow; but, as suggested to me by Professor Don, it is much more nearly allied to the Cupia thyrsoidea of De Candolle. Without any sufficient grounds, it is quoted with a mark of doubt by Dennstedt for the Ardisia humilis of Vahl, and Poiret considered it to be a species of Psychotria,

29. Clerodendrum serratum. Hamilton. Volkameria serrata of Lin. Mant.

Roxburgh has not quoted Rheede for this species; but to support Dr. Hamilton's opinion, I find in the late Gen. Hardwicke's copy that this plate is marked 'Volkameria serrata Lin.'

- 30. Benteka Rheedii. Lam. & R & S. Kasailo racemosa. Denn.
  - All our knowledge of this plant appears to have been derived from this figure and description of Rheede's.
- 31. Cynometra ramiflora. Lin.

In the shape of the leaves this plant differs much from the Cynomorium sylvestre of Rumphius, but all authors have taken it to be the same species.

32. Odina Woodier of Roxb. Rhus Odina. Hamilton. Haberlia grandis. Denn.

### Tab. 33. Garuga pinnata. Roxb. Kunthia Cochinensis. Denn.

#### 34. Schinus Saheria? Hamilton.

Some uncertainty must attend this plant, for Rheede has not figured or described either the flower or the fruit, and what might be mistaken for the latter is the work of an insect. Dennstedt calls it 'Haberlia grandis, mit Gallauswuchsen' (see the foregoing tab. 32), but the leaves answer better to a variety of Schinus Saheria, which Dr. Hamilton has mentioned 'Serraturis magnis remotis incisa.' See Lin. Trans. xvii. p. 193.

### 35. Artocarpus Ponga. Denn.

Dr. Hamilton concurs with Poiret in suspecting that this is a species of Broussonetia, at present unknown; and I apprehend that all Dunnstedt's knowledge of the plant is derived from Rheede.

### 36. Vitex leucoxylon of Lin. Sup. Roxb.

Misquoted by Linnæus, Burman, and Willdenow, and in the Hortus Britannicus, for Sterculia fætida.

### 37. Cordia officinalis. Lam. C. Myxa. Roxb. (not Lin.) C. Myxa Var. Poiret. Sebestena officinalis. Gart.

Linnæus has quoted this figure for C. Myxa, but it does not answer the character 'calycibus decemstriatis,' and the name more properly belongs to a native of Egypt. Of the East Indian plant Roxburgh says that the calyx is 'not in the least striated.'

### 38. Calophyllum Inophyllum. Lin.

# 39. Calophyllum spurium. D.C. C. apetalum. Willd. in Berl. Maq.

Linnæus confounded this species with an American plant of Jacquin's, and both Lamarck and Willdenow (in his Edit. of the Sp. Plant.) have followed him in quoting this figure for C. Calaba, but Willdenow afterwards corrected the error in the Berlin Magazine. It may probably be the C. Calaboides of Don's Dictionary, but he has not quoted this figure.

### 40. Celtis orientalis. Lin. C. orientalis Var. Hamilton.

Much confusion attends the references to this figure, from its having been quoted by Burman both for *Celtis orientalis* and *Rhamnus Napeca*, and by Linnæus for the former in the Species Plantarum, and for *Muntingia Calabura* in the Systema Naturæ. Though Martyn has quoted this figure, his *C. orientalis* is another species, and is the *C. Tournefortii* of Lamarck.

## 41. Zizyphus Jujuba. Gært. Rhamnus Jujuba. Lin.

Mr. Loudon is of opinion that this plant will thrive in the open air in the warmer parts of the South of England (see Arboretum et Fruticetum Britannicum, vol. ii. p. 527); but the plant which Miller cultivated under the name of R. Jujuba, appears from his description to have been a different species.

### 42. Melastoma malabarica. Lin.

The Ben Kadali, described by Rheede on the following page, is said by Wight and Arnott to be Osbeckia Wightiana of Bentham. Dennstedt erroneously considered t. 42 to be M. aspera, and t. 43 to be M. malabarica.

Tab. 43. Osbeckia cupularis? W. & A. Melastoma cyanoides. Smith in Rees's Cyc.

This figure is quoted in the Species Plantarum, and by Gærtner, Willdenow, and Blume, for *M. aspera*; but Burman, in the Flora Indica, has quoted t. 42 both for that species and for *M. malabarica*, and has referred to the present figure for the Linnean *M. hirta*. The elder Burman, in his Index, says that t. 43 is *M. Scabra*, and, by an inaccuracy in the references, has left in uncertainty whether by his name he intended the *M. scabrosa* or *M. aspera* of Linnæus. To add to the confusion De Candolle has referred to this figure both for *M. aspera* and for *M. cyanoides*; and, on the other hand, in the Encyclopædia Methodique, t. 42 and 43 are jointly quoted for *M. malabarica*.

44. Osbeckia virgata? W. & A. Melastoma montana. Denn.

In the late General Hardwick's copy this plate is marked Melastoma nemorum of Kanig, and Rheede says that it altogether resembles t. 42, 'nisi quod foliis, floribus, fructibusque sit minoribus.'

45. Avicennia Oepata. *Hamilton in Lin. Trans.* A. tomentosa. *Roxb.* (not Willd.)

Under the synonymous names of Bontia germinans, Avicennia germinans, or A. tomentosa, Linnæus and several other authors have described a native of the West Indies, with a reference to this figure, and the Malabar plant, though nearly allied, is most probably a separate species.

46. Achras retusa. Denn.

No author besides Dennstedt has noticed this figure, which cannot belong to Achras, and Professor Don thinks that it is more allied to the Calophyllieæ.

47. 348. Guettarda speciosa of Lin. Smith.

Quoted for Nyctanthes hirsuta by Linnæus, and for Jasmimum hirsutum by Willdenow, and Poiret thought that it may be Guettarde scabra (i. e. Mathiola scabra. Lin.), which has only been found in America.

- 49. Casearia ovata. Willd. C. Anavinga. Persoon. Anavinga ovata. Lam.
- 50. Christmannia Courondi. Denn.

I have not met with any other reference to this figure, and Professor Don suspects that it may have been intended for the *Johnia Coromandeliana* of Roxburgh; but among other differences the flowers are described 'numerosis staminulis' by Rheede.

51. Sapium indicum. Roxb.

I know not the meaning, but in General Hardwick's copy this plate is marked 'Antidesma nucifera. L.'

- 52. Azadirachta Indica. W. & A. Melia Azadirachta. Lin.
- Bergera Koenigii of Lin. Mant. W. & A. Nimbo melioides. Denn.
  - Dr. Hamilton has shewn good grounds for believing that this figure, though it has not been referred to, may be the *B. Καπισμ*, and it at least answers far better to the Linnean description than Rumphius's, i. t. 53, f. 1, which has been quoted by Willdenow, or than the plant which, in the Botanical Cabinet,

t. 1019, has been figured for that species. Roxburgh's B. Koenigii, in the Plants of Coromandel, is also different, and it is not quoted in the Flora Indica. In the latter work it is said in Bengal to be a small tree, whereas Rheede mentions its lofty growth, and it may not improbably attain to a larger size in the climate of Malabar.

- Tab. 54. Olea dioica of Roxb. *Hamilton*. Picricarya oppositifolia. *Denn*.
  - 55. Physalis flexuosa. Lin.
    - Quoted by Linnæus, Willdenow, Martyn, Roemer and Schultes, Von Esenbeck, and Roxburgh, and in the Hortus Kewensis and Hortus Britannicus, for *P. flexuosa*; but Dr. Hamilton (in Lin. Trans. xvii. p. 209) has questioned whether it is not an entirely different plant.
  - Stilago Bunias of Lin. Mant. Willd. Antidesma Alexiteria. Lin. Sp. Plant.

Some authors have followed the Species Plantarum in quoting this figure for Antidesma Alexiteria; by others it is referred to for Stilago Bunias; and by some for both; and it has been ascertained by Roxburgh and Sir J. E. Smith that they are the same species. In being triandrous, it answers best to the Linnean character of Stilago, and in its subcylindrical berries to that of Antisdesma.

57. Hedyotis Lawsonia. W. & A. Wendlandia? Lawsonia. D C. Lawsonia purpurea. Lam.

Poiret has suggested that it should be removed to Petesia; but from this genus, equally with Lawsonia and Wendlandia, it differs in being monopetalous.

- 58. Gardenia latifolia of Roxburgh. Bertuchia speciosa. Denn.

  I have not met with any reference to this figure besides Dennstedt's; but, by comparing it with Roxburgh's figure and with authentic specimens at the Linnean Society, it appeared to my friend Mr. Don, as well as myself, to be the G. latifolia. This plate in General Hardwick's copy is marked 'Gardenia'
- heteroclita Koenig.'

  59. Scaevola Taccada. Roxb. Scaevola Bela madogam. R.& S.

  Lobelia Taccada. Gært.? Roemeria Lobelia. Denn.

Four genera from other authors have received the name of Roemeria, and Dennstedt appears very unnecessarily to have added a fifth.

- 60. Callicarpa cana of Lin. Mant.
- I have the authority of my friend Robert Brown for the above reference, and the figure answers to a specimen at the Linnean Society, which has been so named by Dr. Wallich. It is quoted with a query by Dennstedt for the Callicarpa macrophylla of Vahl.
- 61. Sterculia guttata. Roxb. Astrodendrum malabaricum. Denn.

# HORTUS MALABARICUS.

### VOL. V.

#### Tab. 1. Vitex alata. Roxb.

Quoted by Sir J. E. Smith for V. altissimus of the Supplementum Plantarum, and, as he says that the footstalks of that species are sometime winged, it is probably nothing more than a variety, though Roxburgh has placed them separate. Linnæus has defined V. altissimus 'foliis integerimis;' and of the leaves of this plant Rheede only says 'nonnumquam in ambitu crenata.' It is quoted with a query by Dennstedt for the V. pubescens of Vahl.

#### 2. Vitex latifolia. Lam.

#### 3. Parilia malabarica. Denn.

From Dr. Hamilton's remarks in Lin. Trans. xvii. p. 237, it may be inferred that he considered this to be the female of some diecious tree allied to Olea dioica, but the fruit is different; and, as was suggested to me by Professor Don, it is more likely to be a Premna. I apprehend that the genus Parilia has been wholly founded on Rheede's description.

### 4. Cyminosma pedunculata. W. & A.

Drs. Wight and Arnott, whose opinions are entitled to great deference, say that no dependance is to be placed on the shape of the fruit, and that this and table 15 are the same species. It is misquoted by Burman for a variety of his Croton racemosum.

#### 5. Usteria racemosa. Denn.

Quoted by Burman for a variety of his Acalypha spiciflora; and as it cannot be an Usteria either of Cavanilles or Willdenow, I suppose that Dennstedt must have coined a third genus, with the same name from this description of Rheede's. Poiret suspected that it is allied to Ceanothus; and, on the other hand, Dr. Hamilton considered it to be one of the Caprifoliaceæ, and to be at the least nearly allied to the genus Schoepfia. Professor Don, however, thinks that what the Doctor considered to be a calyx is nothing more than the involvucre a little exaggerated, and that it may belong to Acalypha.

#### 6. Hosea malabarica. Denn.

Dr. Hamilton has suggested that this may be a species of Tetracera; and, on the contrary, Professor Don thinks that it is an Antidesma, but Rheede's description as well as figure differs more from both these genera than can be fairly attributed to accident or inadvertence.

# 7. Croton castaneifolium. Burman. Schinza inconspicua. Denn.

The Linnean C. castaneifolium is quite different, and may probably be the Hermesia castaneifolia of Humboldt and Bonpland.

Tab. 8. Tetracera Rheedii. DC. Calophyllum Akara. Burman. Rohlingia suavolens. Denn.

Quoted by Poiret for Tetracera malabaricus of Lamarck (i. e. T. assa of DC.), from which it has been separated by De Candolle.

9. Tetranthera lanuginosa of Wallich. Darwinia quinqueflora. Denn.

Dennstedt has carelessly coined a new genus from this plant, and given it a name which has long been preoccupied for another by Mr. Rudge. It appears to me to be at least very nearly allied to *Tetranthera lanuginosa*, i. e. *Tetradenia lanuginosa* of N. Esenbeck.

- 10. Pavetta indica. Lin. Ixora Pavetta. Roxb.
- 11. Dauceria obtusa. Denn. Embelia? Tsjeriam Cottam. A. DC. Ardisia? Tsjeram Cottam. R & S. Antidesma pubescens. Roxb.?

Misquoted in the Hortus Kewensis and Hortus Britannicus for the Linnean Antidesma alexiteria, and it somewhat resembles a male plant of that species, but Rheede has figured the fruit.

- 12. Daucerià acuta. Denn. Embelia? Basaal. A. DC. Ardisia? Basaal. R. & S.
- 13. Carallia corymbosa. Arnott. Demidofia nodosa. Denn. Catalium nitidum. Ham. MS.

I only know Carallia integrifolia by De Candolle's short description, and it may possibly be the same species.

14. Guatteria Korinti. DC.

Quoted by Dennstedt with a ? for Uvaria lutea of Willdenow.

 Cyminosma pedunculata. Roxb. Laxmannia ankænda. Smith. Dorrienia malabarica. Denn.

There appears to be two species distinguishable by their long and comparatively short petals, and the name of Ankanda has been given to the latter by Gærtner and De Candolle, and to the former by Dryander and Smith. See Lin. Trans. vol. ii. p. 232. Roxburgh, without appearing to be at all acquainted with the Ankanda, has quoted this figure for his C. pedunculata, and De Candolle has added a query to the reference, for which I cannot see any sufficient grounds. The C. Ankanda of De Candolle is the M. cyminosma of Smith, and though not equally proper, it is preferable, to avoid further confusion, that Gærtner should be followed, and that the name of Ankanda should be retained for the species with short petals.

16. Guatteria sempervirens. D C.

Quoted for *Uvaria cerasoides* of Roxb. by Poiret, and with a ? for *Uvaria ligularis* of Lamarck by Dennstedt.

- 17. Uvaria Heyneana. W. & A. U. paracaroensis. Denn. Guatteria montana. DC. G. malabarica. Dunal.
  - 18. Guatteria acutiflora. Dunal. Uvaria mangattensis. Denn.
  - Memecylon laxiflorum. DC. M. tinctorium Var. W. & A.
     Sir J. E. Smith has quoted this figure for M. capitellatum, but it does not answer to the Cornus sylvestris of Burman's Thesaurus, which Linnæus has quoted,

or to the only Memecylon in the Linnean Herbarium; and as Burman's figure and this specimen also differ, it is probable that Linnæus may have confounded at least two species under that name. By Lamark, Persoon, and Dennstedt it is misquoted for Eugenia parviflora of Lamarck.

Tab. 20. Sygyzium Zeylanicum of D.C. W. & A. S. Bellutta. D.C. Calyptranthus malabaricus. Denn. Myrtus quadrangularis. Ham. MS.

All our knowledge of S. Bellutta appears to have been derived from this figure and description of Rheede's.

21. Rottlera tinctoria. Roxb.

Mistaken by Dennstedt for the Linnean Excæcaria Agallocha.

22.

Dennstedt says that this is the Croton coccineum of Willdenow, which Roxburgh has suggested may be his Rottlera tinctoria, i. e. tab. 21, and it is very nearly allied to that species.

23. Excæcaria canjoerensis. Denn.

Burman has quoted this figure for a variety of Acalypha spiciflora, and it is obviously from Rheede that Dennstedt has derived all his knowledge of this plant, which I have Professor Don's authority for considering to be a Croton.

24. Rottlera tinctoria Var. monstrosa. Ham. MS.

Dennstedt has no ground for suspecting that it may be the Croton farinosum of Lamarck, and it is by far more probably a lusus, occasioned by some insect.

25. Schmidelia Timoriensis. D.C.

Burman and Martyn have followed Linnæus in misquoting this figure for Rhus Cominea, which is a West Indian plant; and it is quoted by Wight and Arnott for their Schmidelia Cobbe, i. e. Rhus Cobbe of Linnæus; but, in its compound racemes, it answers better to the S. Timoriensis of De Candolle, and to the Ornitrophe repanda of Roxburgh, though De Candolle has queried whether the former is more than a variety of S. Cobbe. Dennstedt, without sufficient grounds, has suggested that it may be the Dalechampia triphylla of Lamarck.

- 26. Antidesma sylvestris. Lam.
- 27. Syzygium caryophyllæum of Gært. W. & A. Eugenia corymbosa. Lam.

This is the Linnean Myrtus caryophyllata, and the Eugenia caryophyllata of Roxburgh is the Caryophyllus aromaticus of Linnæus; both of which plants are figured in tab. 153 of Plukenet's Phytographia. Eugenia corymbosa of Roxburgh is a different species.

- 28. Ardisia solanacea of Roxb. Niara montanensis. Denn.
  - I know not what grounds Dennstedt could find for placing this plant as a separate genus, and Mr. Don has confirmed my suspicion that it is the A. solanacea of Roxburgh.
- Syzygium Jambolanum of D.C. W. S. A. S. caryophyllifolium. D.C. Calyptranthes caryophyllifolia. Willd. C. Cumini. Persoon. Eugenia caryophyllifolia. Lam. E. Jambolana. Roxb.

Although the contrary is asserted by Roxburgh in the Flora Indica, vol. ii. p. 487, yet I apprehend that no certain character can be found to distinguish them,

and that Drs. Wight and Arnott have rightly arranged the S. Jambolanum and S. caryophyllifolium of De Candolle, as the same species.

#### Tab. 30. Adolia alba. Lam. Scutia indica. W. & A.

It is considered by Drs. Wight and Arnott to be an unarmed variety of Scutia indica, i. e. Rhamnus circumscissus of Linnæus; and Roxburgh, of the latter, says that 'the leading shoots are unarmed.' It is quoted with a query by Dennstedt for the Linnean R. lineatus, but does not sufficiently answer to Osbeck's figure and description.

#### 31. Adolia rubra. Lam.

Wight and Arnott say that they have seen specimens with leaves equally acute, and have quoted this figure jointly with tab. 30, for Scutia indica.

#### 32. Rottlera dicocca? Roxb.

Linnæus and several other authors have been misled by Burman to quote this figure under the names of Acalypha hispida or A. speciflora (i. e. Caturus speciflorus of Lin. Mant.), and Roxburgh has mentioned its greater affinity with Rottlera dicocca, some specimens of which at the Linnean Society it much resembles, but the capsules do not accord with Rheede's description.

#### 33. Amelia Caretta. Ham. MS.

Dennstedt considers this to be the Psychotria asiatica of Linnæus, but it is quite different.

- 34. Zanthoxylum Rhetsa of D.C. W.&. A. Typalia limonella. Denn.
- 35. Griffithia fragrans. W. & A. Randia malabarica. Lam. Stylocoryna? Pandaki of DC.
- 36. Canthium parviflorum. Lam. Monetia triphylla. Denn.

Misquoted by Gærtner for C. didymum. Roxburgh has two species of Canthium with the name of parviflorum, and this, with four stamens, is one, and the following C. Rheedii is probably the other.

#### 37. Canthium Rheedii. D C.

By some authors this figure has been erroneously quoted for Monetia diacantha; by others (instead of 36) for Webera tetrandra, and by Willdenow for both.

#### 38. Flacourtia cataphracta of Roxb.

Both the flowers and fruit were unknown to Rheede, and I am indebted to Professor Don for the name.

### 39. Flacourtia sepiaria. Roxb.

Misquoted by Linnæus, Burman, and Lamarck, for Sideroxylon spinosum, which is Argania sideroxylon of Roemer and Schultes.

### 40. Sondaria cranganoorensis. Denn.

Dr. Hamilton thought that this may be one of the Rhamnæ, but my friend Professor Don has suggested that it belongs rather to the Celastrineæ.

 Toddalia asiatica. Lam. T. aculeata. D.C. Paullinia asiatica. Lin. Scopolia aculeata. Roxb. Cranzia aculeata. Martyn.

#### Tab. 42. Bruxanelia indica. Denn.

All Dennstedt's knowledge of this plant has most probably been derived from the Hortus Malabaricus, and it has been suggested that it may belong to Grewia, by Lamarck, and to the Coffeaceæ by Poiret; and, on the other hand, it is said be nearly allied to Memeclyon and Jambolifera, by Dr. Hamilton.

- 43. Phyllanthus turbinatus. Roxb. P. retusus. Denn.
- 44. Phyllanthus Vitis Idæa. Roxb. P. oblongifolius. Denn. Erroneously quoted in Burman's Index for the Linnean P. maderaspatensis.
- 45. Excæcaria Camettia. Willd.

Misquoted, instead of vii. t. 45, by Lamarck, De Candolle, and others for Cissus trilobata; all Willdenow's knowledge of this plant appears to have been derived from Rheede, and Sir J. E. Smith, in Rees's Cyclopædia, has thrown out a query whether it is more than a variety of the Linnean E. Agallocha.

46. Grewia pilosa. Lam.

Quoted by Linnæus and most other authors for G. orientalis, and by Lamarck both for G. orientalis and for his G. pilosa, which he describes with hairy fruit, and to differ in having 'Les pedoncles divisées et multiflores.' A specimen, marked G. pilosa, at the Linnean Society, differs from Rheede's description only in its yellowish flowers, and this figure is quoted with a mark of doubt by Wight and Arnott for G. columnaris.

- 47. Colubrina asiatica of Brongniart. Ceanothus asiaticus of Lin. *Lam.* Celastrus sepiarius. *Denn.*
- 48. Gomphia augustifolia. Vahl. Walkera serrata. Willd. Meesia serrata. Gært.
- 49. Clerodendrum inerme. Roxb. Volkameria inermis of Lin.
- 50. Casearia esculenta. Roxb. Bedousia malabarica. Denn.

Quoted with a query by Poiret for his Samyda fragilis, and they appear to be nearly allied.

- 51. Premna longifolia of Roxb. Baldingera glandulosa. Denn.
  Roxburgh has not quoted this figure, but it answers to his description and specimens at the Linnean Society.
- Gomphia augustifolia Var. monstrosa. W. &. A G. malabarica. DC. Ochna malabarica. Poiret.

Wight and Arnott consider this to be a monstrocity of tab. 48, and there is not any such difference in the appearance or description of their stamens as to warrant De Candolle in quoting the one for a Walkera, and the other for a Gomphia. See G. Sumatrana, in Hooker's Botanical Miscellany, vol. ii. p. 78.

53. Cinnamomum malabratum. Lam. Laurus malabratum. Burman.

Roxburgh has quoted this figure for his *L. malabathrica*, which is the *C. Eucalyptoides* of Nees Von Esenbeck, and this latter author queries whether Rheede's plant may not be a variety of his *C. obtusifolium*; but I take the specimen, which it most resembles at the Linnean Society, to be the *L. malabratum* of Wallich.

#### Tab. 54. Coulejia amentacea. Denn.

I fear that a genus of Dennstedt's coining is of no great value, and Professor Don has suggested that this may be an undescribed species of Antidesma.

## 55. Chionanthus Ghæri. Ham. MS. Forsythia Mala Elengi. Denn.

All Gærtner's knowledge of C. Ghæri was derived from an empty capsule which he found in a Museum at Leyden, and, as Lamarck's figure is a mere copy from Gærtner's, it is likely always to remain a doubtful species. Rheede's plant is nearly allied to the C. ramiflora of Roxburgh, and cannot belong to Forsythia.

#### 56. Rodschiedia serrata. Denn.

Rodschiedia is another most uncertain genus of Dennstedt's creation, and Professor Don thinks that this plant of Rheede's is undoubtedly a species of Croton.

#### 57.

Rheede has not noticed either the flower or the fruit, and the Olus albus of Rumphius, vol. i. t. 78, is probably the same tree.

#### 58. Dalbergia paniculata of Willd.

Quoted in Hamilton's MS. for *D. latifolia* of Willdenow, but it answers better to Roxburgh's figure of *D. paniculata*. Poiret conjectured that it may be a species of Sophora allied to *S. keptaphylla*, and that the timber called 'Bois de Bitte,' is produced by it.

### 59. Jonesia Asoca. Roxb. J. pinnata. Willd.

Linnæus has not quoted any figure, but there seems to be no doubt that this is the Saraca Indica of his Mantissa.

 Bambusa baccifera. Roxb. B. scriptoria. Denn. Beesha baccifera. R. & S.

### HORTUS MALABARICUS.

#### VOL. VI.

- Tab. 1. Poinciana pulcherrima. Lin. Cæsalpinia pulcherrima. Willd.
  - 2. Cæsalpinia Sappan. Lin.
  - Pongamia glabra. Vent. Galedupa indica. Lam. Dalbergia arborea. Willd.

Pongam is Rheede's name for this plant, and Ventenat has observed, "J'aurois dû peut-etre citer avec doubte le synonyme de Rheede, pareeque la Plante qui est figurée dans l'Hortus Malabaricus, et qui est le type du genre Pongamia, semble differer, surtout par la forme de ses fruits and de ses semences du *Pongamia glabra.*" Sir W. Jones, in the Asiatic Researches, vol. iv. p. 300, has used Caranjaca for the generic name.

- 4. Acacia Intsia. Willd. Mimosa Intsia. Lin.
- 5. Acacia odoratissima of Willd. W. & A. A. lomatocarpa. DC. Mimosa marginata. Lam.

Quoted by De Candolle for his A. lomatocarpa, but he has queried whether the flowers in this figure are not too loosely panicled, &c., and Wight and Arnott appear to have decided rightly that his A. lomatocarpa and A. odoratissima are the same.

6. Ameloveenia spinosa. Denn.

This may probably have no claim to constitute a separate genus, and Professor Don considers it to be a Cæsalpinea, although the leaves in the figure are not bipinnate, and Rheede has described the flowers to be pentandrous.

- Erythrina indica. Lam. E. corallodendrum Var. orientalis. Lin.
- 8. Cæsalpinia mimusoides. Lam.
- 9. Cassia glauca. Lam. C. arborescens. Willd. C. sul-
- 10.  $\int$  phurea. DC. Senna arborescens. Roxb.
  - C. arborescens of Martyn is quite different, and is a native of South America.
- 11. Moringa pterogosperma. Gært. Hyperanthera moringa. Willd. Guilandina moringa. Lin.
- 12. Inga bigemina. Willd. Mimosa bigemina. Lin.

Tab. 13. Cajanus bicolor. D C. C. indicus Var. W. & A.

Most other writers have followed Linnæus in quoting this figure or Cytisus Cajan, which comprises the Cajanus flavus and Cajanus bicolor of De Candolle, and whether they are more than varieties is rather uncertain.

- 14. Adenanthera pavonina. Lin.
- 15. Ailantus Pongelion. Gmelin. Ailantus malabarica. D.C. Adenanthera triphysa. Denn.

Misquoted by Poiret for Ailantus glandulosa.

- 16. Butea frondosa. Roxb. Erythrina monosperma. Lam.
  - Sir William Jones has strongly expressed a hope that this genus may be allowed to retain the name of Palasa, 'its ancient and classical appellation.'
- Niota pendula. Smith. N. pentapetala. Poiret. Samadera indica of Gært. W. & A.
  - Sir J. E. Smith (in Rees's Cyc.) has shewn that there are no grounds for placing the N. tetrapetala and N. pentapetala as separate species. Plukenet first coupled the name of Samandra with the Nagam of Rheede (tab. 21.), and from hence the Samandara of Burman and the Samandura of Linnæus's Flora Zeylanica have been derived; and, as Gærtner's Samadera has obviously the same derivation, it may be queried, particularly from the references to Ray, whether the name does not belong to Heritiera rather than Niota.
- Cæsalpinia paniculata. Roxb. Guilandina paniculata.
   Lam.
- 20. Cæsalpinia axillaris. D C. Guilandina axillaris. Lam.
- 21. Heritiera littoralis. H. Kew. Sutherlandia littoralis. Gmelin.

See the foregoing note on tab. 18.

- 22. Dalbergia scandens. Roxb.
  - Misquoted by Willdenow, Smith, and others, for D. lanceolaria of the Supplementum Plantarum, and as a variety of that species by Lamarck; and De Candolle considered it to be either his D. Timoriensis or a species unknown.
- Justicia bicalyculata of Willd. Ham. MS. J. fragilis. Denn.
   It is not much like Roxburgh's specimen, but may be a variety of Justicia (Peristrophe) bicalyculata.
- 24. Connarus pinnatus. Lam.
  - Dennstedt has arranged this for the Linnean C. asiaticus, and vol. vii. t. 26, for C. pinnatus. De Candolle has not quoted this figure, but C. pinnatus is his Omphalobium pinnatum; and I may here remark, that the name Omphalobium is now in use for two very different genera. See Hortus Britannicus, p. 155, and p. 277.
- 25. Pterocarpus Marsupium of Roxb.? W. & A. Cassia candenatensis. Denn.
  - This may possibly have been intended for a starved plant of P. Marsupium, which it resembles in the leaves, but the disposition of the flowers is quite different, and the membranaceous wing of the legume is wanting.

### Tab. 26. Bignonia Colais. Ham. MS.

Quoted by the younger Linnæus, and generally by other authors, for B. Chelonoides, but was considered by Dr. Hamilton to be a separate species.

27. Sesbania Ægyptiaca of Pers. W. & A. Æschynomene Sesban of Lin. Roxb.

Misquoted by Willdenow for Coronilla aculeata, and for Sesbania aculeata by De Candolle, and the long pendulous legumes answer better to Alpinus's figure, which Linnæus has quoted for Æ. Sesban.

28. Apama siliuosa. Lam. A. dubia of Gmelin.

Lamarck's knowledge of this plant was wholly derived from the Hortus Malabaricus, and it is most probable that Apama has been misprinted for Alpama, and that the generical name was intended to be taken from Alpam, which is Rheede's name. Plukenet has noticed its affinity with his Phytographia, tab. 96, f. 7.

29.

Quoted by the younger Linnæus and others for Bignonia Spathacea, from the description of which it materially differs, and Spathodea Rheedi is merely another name for that species; or if taken, as the name implies, wholly from this figure, it should have been described to be octandrous. It is also misquoted in the Hortus Britannicus for Spathodea longiflora of Ventenat, as synonymous with B. chelonoides.

30. Helicteres corylifolia. Ham. MS.

Quoted by Lamarck for his *H. ovata*, and by Linnæus and most other Botanists for *H. Isora*. Dr. Hamilton, however, considered it to be a separate species; but, as the leaves of *H. Isora* vary considerably in shape, I much doubt whether it is more than a variety.

31. Bruguiera Rheedii. Blume.

Quoted by Linnæus and most other writers for Rhizophora gymnorhiza, and for Bruguiera gymnorhiza by Lamarck; and it is plain that both B. Rheedii and B. cylindrica were considered by Gærtner to be nothing more than varieties of the West Indian R. Mangle.

33. Bruguiera cylindrica. Blume. B. malabarica. Arnott. Rhizophora cylindrica. Lin.

Dr. Arnott has given the name of B. malabarica to this plant, and retained that of B. cylindrica for the Mangium digitatum of Rumphius, apparently under an erroneous impression that Linnæus had quoted the Herbarium Amboinense, vol. iii. tab. 70, jointly with Rheede's figure for his R. cylindrica. It is the Mangium minus, t. 69, that Linnæus has quoted, and this Blume considers to be the foregoing B. Rheedii.

34. Rhizophora conjugata of Lin. Arnott. R. Mangle. Roxb. (not Lin.) R. apiculata. Blume. R. candelaria. D C.

Misquoted by Linnæus and most other authors for R. Mangle, which is now said not to have been found in the East Indies.

- 35. Kandelia Rheedii. W.& A. Rhizophora Candel. Lin.
- 36. Ægiceras majus of Gært. Roxb. Æ. fragrans. C. Kænig. Bruguiera obtusa. Denn.

As pointed out by Mr. C. Konig it is the Rhizophora corniculata of Linnæus.

Tab. 37. Lumnitzera racemosa of Willd. W. & A. Petaloma 'alternifolia. Roxb. Bruguiera Madagascariensis. Roxb. Funkia Cara Kandel. Denn.

Dr. Jack has mentioned the affinity of this plant to his Pyrranthus litoreus, and it is quoted erroneously by Gaudichaud for Laguncularia purpurea.

38. 39. 40. Hibiscus mutabilis. *Lin.* 41.

- 43. Hibiscus Rosa Sinensis of Lin.
- 44. Hibiscus aculeatus. Roxb. H. Surattensis Var. Lin.
- 45. Abutilon populifolium. G. Don. Sida populifolia. Lam. Abutilon indicum. W. & A.

Considered by Wight and Arnott to be the Sida indica, and by Burman this figure is quoted for the S. asiatica of Linnæus, which may probably be nothing more than a variety.

- 46. Hibiscus vitifolius. Lin.
- 47. Ophioxylon serpentinum. Lin. (Syst. Nat.) O. trifoliatum. Gært. Reichardia jasminoides. Denn.

The leaves in this figure, probably through an error of the artists, are binate; and though a variable plant, I have never seen any specimen in which they are less than ternate. I apprehend it is this which induced Dennstedt to give it another name, and that all his knowledge of the Reichardia jasminoides has been derived from Rheede. Most other authors, except Burman, have taken it to be an Ophioxylon, and by Poiret, who has arranged the O. serpentinum and O. trifoliatum as separate species, it is quoted for both.

48. Tabernæmontana orientalis of Brown Var.? Reichardia grandiflora. *Denn*.

Rheede has not noticed either the stamens or the fruit, and Dennstedt must rather rashly have referred it to the same genus as the foregoing tab. 47. It has much the appearance of a Tabernæmontana, and except in the arrangement of the leaves, it resembles the Curutu Pala (vol. i. tab. 46), on which Linnæus has founded his T. alternifolia, and it is at least nearly allied to the T. orientalis of Brown, but the flowers are described to be scentless.

- 49. Gardenia florida of Lin.? Denn.
  - As Rheede has not noticed the seed vessel, this must remain rather an uncertain figure, and the more so as the late Dr. Hamilton considered it to be one of the Apocynæ. For this I cannot, however, think that he had sufficient grounds, and he has suggested, from the exserted filaments, that it may belong to Parsonsia or Lyonsia, but to me it appears to be Gardenia florida.
- 50. Jasminum Sambac Var. Roxb. Mogorium Sambac.

Misquoted by the younger Burman for his Nyctanthes multiflora, which is J. pubescens.

Tab. 51. Jasminum Sambac Var. trifoliatum. Vahl. Mogorium Sambac Var. Lam.

Loureiro has not quoted any figure; but this, most probably, is his Nyctanthes grandiflora.

- 52. Jasminum grandiflorum. Lin.
- Jasminum angustifolium. Willd. J. angustifolium Var. laurifolium. Bot. Reg. Mogorium triflorum. Lam. Nyctanthes angustifolia. Lin.
- 54. Jasminum pubescens. Roxb. Mogorium multiflorum. Lam. In some points this figure answers better to Nyctanthes elongatum of the Supplementum Plantarum, i. e., J. elongatum of Willdenow, for which it has been quoted by Dennstedt, and the plant is said by Rheede to be inodorous, whereas both J. pubescens and J. elongatum are fragrant.
- 55. Jasminum undulatum Willd. Mogorium undulatum. Lam. Nyctanthes undulata. Lin.

Roxburgh considered this to be only a variety of *J. Sambac*, which species, for its beauty and fragrance, is much cultivated in the gardens of all the warmer climates, and is therefore likely to vary much from a difference in the soil and treatment. *J. undulatum* of the Botanical Register is a different species, and if the short description, exclusive of the synonym, can be relied on, it may be the Linnean *Nyctanthes hirsuta*.

56.

Quoted erroneously by Dennstedt for Jasminum vimineum of Willdenow, and by Burman in his Index for 'Jasminum Nyctanthes of Linnæus, Sp. Plant. p. 456.'? Professor Don considers it to be a Gardenia, which it otherwise resembles, but differs both in the figure and description of the stamens.

57. Capparis Heyneana. W. & A.

Linnæus in the Species Plantarum has confounded an American plant of Plumier's with another of Browne's, and, retaining an erroneous reference to this figure, which appears in Plumier's work, has given Rheede's name of Baducca to the species, and several authors have followed him in quoting it for C. Baducca. By De Candolle this figure is quoted for another species, from the description of which it also differs, and to which, from the supposed identity, he has given the name of C. Rheedii, and by Drs. Wight and Arnott C. Rheedi is considered to be nothing more than a variety of De Candolle's C. brevispina.

- 58. Pterospermum glabrescens. W. & A.

  Quoted with a query by Dennstedt for Capparis mariana of Jacquin.
- Hiptage Madablota. Gært. Gærtnera racemosa. Roxb.
   Molina racemosa. Lam. Banisteria benghalensis of
   Lin. Martyn. Succowia fimbriata. Denn.
- 60. Justitia picta. Lin. Gratophyllum hortense. N. Esen.
- 61. Croton variegatum. Lin.

## HORTUS MALABARICUS.

#### VOL. VII.

Tab. 1 Anamirta Cocculus, W. & A. Cocculus suberosus of D.C.
W. & A. Cissampelos Cocculus. Poiret. Menispermum Cocculus. Lin.

Though Roxburgh has not quoted this very indifferent figure for either, it may be doubted whether his M. Cocculus is more than a younger plant or variety of his M. heteroclitum; and Colebrook's description of Anamirta paniculata (i.e. A. Cocculus of W. & A.), is taken almost verbatim from the description of the latter in the Flora Indica. See Lin. Trans. xiii. p. 66.

- Cansjera Rheedii of Gmelin. R. & S. C. malabarica. Lam. C. scandens Var. Roxb. Daphne polystachia. Willd.
- 3. Cocculus acuminatus. W. & A. C. radiatus. DC. Menispermum radiatum. Lam. M. glabrum of Konig. Persoon. Braunea menispermoides. Willd.

Wight and Arnott consider the Tiliacora racemosa of Colebrook to be the same species, and it appears from his MS. that Dr. Hamilton was disposed to remove it from Cocculus with the generical name of Natsiatura.

 Cansjera scandens. Roxb. C. malabarica Var. Lam. C. Rheedii Var. R & S. Daphne monostachya. Willd.

Tab. 2 is the C. malabarica of Lamarck, and he has called this plant a variety 'racemulis solitariis.'

5. Strychnos minor. Denn.

Quoted by Linnæus and several other writers for S. Colubrina, but in many respects it answers better to the description of S. potatorum, and Dennstedt's authority for arranging it as a species otherwise undescribed than by Rheede, is very doubtful. See note on vol. viii., t. 24.

6. Vitis indica. Lin.

Hamilton considered this, instead of tab. 7, to be the *V. latifolia* of Roxburgh, but it is quoted by Roxburgh himself for *V. indica*, and answers better both to the description and specimens of the latter.

7. Vitis erioclada. W. & A.

Misquoted by Roxburgh for his V. latifolia, and by Dennstedt with a query for Vitis (i. e. Cissus) vitiginea of Linnæus. In the fourth line of Rheede's Description, it is the opinion of Drs. Wight and Arnott that 'viscosus' is a misprint for 'villosus,' See Prod. Fl. Ind. Orien. p. 130.

Tab. 8. Vitis muricata of Wall. W. S. A. V. leucostaphyla. Denn.

Quoted by Roxburgh and De Candolle for Cissus lanceolaria, of which V. muricata is probably nothing more than a variety.

- 9. Vitis carnosa. W.S. A. Cissus carnosa. Lam.
- 10. Vitis pedata. W. & A. Cissus pedata. Lam.

De Candolle has queried whether this can be C. pedata, on account of Rheede's description 'Flores quinque partiti;' but in the figure some of the flowers have four and other five petals, and a similar variation has been observed by Roxburgh in his C. feminea. Burman has mistaken this figure for the Linnean Sambucus canadensis.

 Vitis latifolia. Denn. Cissus latifolius. Lam. C. glauca. Roxb.

Misquoted by Linnæus in the Species Plantarum for C. vitiginea, and by Burman and in the Systema Naturæ for C. Sicyoides. By Wight and Arnott it is quoted with a query for the V. latifolius of Roxburgh; but Rheede has described it 'flores quadripartiti,' and, though not a good figure, I more incline to Roxburgh's opinion, that it is his C. glauca.

- 12. Piper nigrum. Lin. P. aromaticum. Lam.
- Piper Galtena. Ham. MS.
   Quoted with a query by Dennstedt for the Linnean P. Siriboa.
- 14. Piper longum. Lin.
- 15. Piper Betle. Lin.
- 16. Piper malamiri. Lin.

Quoted by Lamarck for his *P. plantagineum*, which Poiret has arranged as a variety of *P. amalago*, and by Dennstedt for the latter species, though I am not aware of its growth in the East Indies.

17. Canthium cordatum. Ham. MS.

Misquoted by Linnæus and others for Pisonia mitis, for P. inermis by Gmelin, and by Dennstedt for P. aculeatus.

18. Pæderia? Valli Kara. D C. Reussia sarmentosa. Denn.

Our knowledge of this plant appears to be wholly derived from the Hortus Malabaricus, and as Rheede's figure and description do not well accord, De Candolle has placed it among the doubtful species.

19. Cocculus malabaricus. DC. Menispermum malabaricum. 20. Lam.

Mr. Colebrook says that this species has remained unexamined since the days of Rheede, and Dr. Hamilton has suggested that the M. hirsutum of Roxburgh (not Willdenow) may be the same, but it does not well accord with Roxburgh's reference to Plukenet.

 Cocculus cordifolius. D C. Menispermum cordifolium. Roxb. M. glabrum. Burman. Tab. 22. Gnetum scandens. Roxb. G. funiculare. Smith. Thoa edulis. Willd.

Loureiro has not quoted this figure, but his Abutua indica is the same species.

23. Combretum Wightianum. W. & A.

Misquoted by Dennstedt for Amyris Protium of Willdenow, i. e. Protium Javanicum of Burman and De Candolle.

24. Basella cordifolia. Lam.

Quoted by Linnæus, Gærtner, and Persoon, for B. rubra, and by Willdenow both for B. rubra and B. cordifolia, and Roxburgh says that neither of these are more than cultivated varieties of the Linnean B. alba.

25. Curinila Rheedi. R. & S. Reinera baypinensis. Denn.

Lamarck, with whom the genus Curinila originated, has derived all his knowledge of it from Rheede.

26. Connarus monocarpus of Lin. W. & A.

Dennstedt considered it to be the C. pinnatus of Cavanilles.

 Morinda umbellata of Lin. Denn. M. padavara. Juss. M. tetrandra. Jack.

De Candolle says that this figure is either M. tetrandra or M. parvifolia, and it is probable, from the observation of Drs. Wight and Arnott, that they are not specifically distinct. M. umbellata is rather an uncertain species, of which there is not any specimen in the Linnean Herbarium, and this figure answers much better to the description in the Flora Zeylanica than the figure of Rumphius, to which Linnæus, in the Species Plantarum, has referred.

- 28. Paratropia venulosa. W. & A. Aralia digitata. Roxb. Hedera terebinthinacea of Vahl.? R. & S.
- 29. Loranthus Loniceroides. Lin. L. coriaceus. Lam. Elytranthe Loniceroides of G. Don.

Nearly all authors have quoted this for the Linnean L. loniceroides, but Rheede has both figured and described it to be polyandrous.

30. Antidesma parasitica. Pothos pentandra. Denn.

I have not met with any other reference to this figure, and Dennstedt's reason for calling it a Pothos I am unable to discover. Poiret says, 'il est difficile de rapprocher d'aucune des genres counus, a moins que ne soit des Loranthes ou du Guis.' I have Professor Don's authority for its being an Antidesma, and if so, it must be the male plant of a parasitical species, which is not elsewhere described.

31. Smilax zeylanica of Lin. Poiret.

Quoted by Burman for his S. indica, which is described 'caule inermi;' and is not the S. indica of Duhamel, which Steudel has properly arranged as a variety of S. zeylanica. By Dennstedt it is quoted with a query for the Linnean S. China.

32. Cynanchum Magale. Ham. MS.

Dennstedt says that it is the Periploca cordata of Lamarck.

#### Tab. 33. Dioscorea triphylla. Lin.

Quoted by Linnæus and most other authors for *D. triphylla*, of which Blume considered it to be a female plant; but Dr. Hamilton suspected that it is distinct, and has proposed *D. Mulu* for its name.

34. Dioscorea pentaphylla of Lin. Roxb. Planta junior. Blume.

This figure, by most authors, has been quoted jointly with tab. 35 for D. pentaphylla; but in Hamilton's MS. it is referred to with Rumphius, vol. v. t. 127, for a separate species, with the name of D. Dava, and this tab. 127, is the D. dæmona of Roxburgh. In Burman's Index it is also quoted separately for the 'D. spinosa' of Linnæus, with a reference both to the Species Plantarum and the Flora Indica, and there is no such species in either.

- 35. Dioscorea pentaphylla. Lin.
- 36. Dioscorea bulbifera. Lin. D. tamifolia. Salisbury. By Wight and Arnott this figure is accidentally misquoted instead of vol. v. t. 36, for Canthium parviflorum.
- 37. Dioscorea aculeata. Lin.
- 38. Dioscorea alata. Lin.
- 39. Erycibe Rheedii. Blume. Erimitalia Rheedi. R. & S.

Quoted by Roxburgh for his Erycibe paniculata, but the figure in the 'Plants of Coromandel' has altogether the appearance of being a separate species.

- 40. Pothos scandens. Lin.
- 41. Vitis quadrangularis. W. & A. Cissus quadrangularis of Lin. Lam.
- 42. Pothos drupacea. Denn.

I have not met with any reference besides Dennstedt's to this figure, and it has more the habit of an Antidesma, but the flowers are tetrandrous.

43. Syama lata. Sir W. Jones.

This plant of Rheede's in the Asiatic Researches has been described by Sir W. Jones with the name of Syama, and the above trivial name has been added in his copy of the Hortus Malabaricus at the Athenaum. By Jussieu it is quoted for his Pupalia lappacea, from a supposition that it is the Achyranthes lappacea; but for that species all other authors have followed Linnæus in quoting vol. x. tab. 59, which is the Desmochæta atro-purpurea of De Candolle. See Anals of Botany, vol. ii. p. 275.

44. Cassytha zeylanica of Gært. C. filiformis. N. Esen.

Quoted by Linnæus and most other writers for *C. filiformis*, and under that name Linnæus has confounded two species, the one a native of the East and the other of the West Indies. By Gærtner the name of *filiformis* has been retained for the latter, and zeylunica given to the present species; but by Nees Von Esenbeck (in Wallich, vol. ii. p. 69), it is retained for the former, and the latter is called *C. americana*.

45. Vitis Rheedii. W. & A. Cissus trilobata. Lam.

Misquoted by Burman for the Linnean Vitis trifolia, which is more likely to be the preceding tab. 9.

## Tab. 46. Artabotrys odoratissimus of Brown Blume. Unona uncinata. Lam.

This does not appear among the numerous synonyms which are given of A. odoratissimus in the Botanical Register, tab. 423; and, from Rheede's never having seen the fructification, it must be taken as a rather doubtful figure.

### 47. Ancistrocladus Heyneanus of Wallich? W. & A.

Rheede has not at all noticed the fructification which must render this an uncertain figure.

# 48. Vitis repens. W. & A. Cissus repens. Lam. Ingenhoussia umbellata. Denn.

Quoted by Roxburgh jointly with Rumphius, vol. v. tab. 164, fig. 1, for *Cissus cordatus*, and his description does not well accord with either of these figures.

#### Clypea Burmanni. W. & A. Cissampelos hexandra. Roxb. Menispermum peltatum. Lam.

This is undoubtedly the Smilax foliis peltatis of the Thesaurus Zeylancus, for which Burman has erroneously quoted the preceding tab. 37, and it is the Dioscorea foliis peltatis of the Flora Zeylanica, but Linnæus has not noticed the species in either of his other works.

## 50. Ipomæa Batatas. Poiret. Convolvulus Batatus. Lin. Batatus edulis. G. Don.

Burman, in the Flora Indica, has quoted this figure both for C. Batatas and for his Dioscorea cylindrica, and it is quoted with a query by Loureiro for Dioscorea eburnea.

## 51. Dioscorea hirsuta, inflorescentia monstruosa. Blume. Dios-

52. \ corea hispida. Denn.

As Rheede has not noticed the fruit, Lamarck suggested that it may belong to Trichosanthes, and Dr. Hamilton queried whether it may not be a species of Smilax, for which he proposed the name of S. narcotica.

### 53. Flagellaria indica. Lin.

### 54. Delima? Piripu. DC.

Generally quoted either as a Delima or Tetracera for the Linnean *D. sarmentosa*, but has been separated by De Candolle; and all his knowledge of this pentandrous species appears to have been derived from Rheede.

# 55. Aganosma caryophyllata. G. Don. Echites caryophyllata. Blume. Camettia crassa. Ham. MS.

Quoted in the Botanical Magazine, tab. 1919, and by Romer and Schultes for the *E. caryophyllata of Roxburgh*, for which Roxburgh has referred to Rheede's vol. ix. tab. 14, and Dennstedt has strangely queried whether it is not the *Jasminum pubescens* of Willdenow. The difference between this plant and an Echites was first pointed out by Mr. Brown, in the Transactions of the Wernerian Society, vol. i. p. 60.

### 56. Boerhavia procumbens. Roxb.

Quoted by Linnaus for B. diffusa, and by Burman for the Linnean B. erecta, nor, from Roxburgh's observations, is it probable that either of them is more than a variety of B. procumbers. Vahl, however, who makes the Linuean

B. diffusa and B. erecta to be different species, has given the name of B. glutinosa to Burman's B. erecta, and as a note on the latter says, 'Talu Dama, Hort. Mal. vii. tab. 56, minimæ hunc pertinet.'

- Tab. 57. Gloriosa superba. Lin.
  - 58. Cyanotis cristata of D. Don. Tradescantia cristata of Lin. Blume. Tradescantia imbricata. Roxb.

Burman has quoted this figure for a variety of Commelina cristata, of the Species Plantarum, which is Tradescantia cristata of the Systema Naturæ.

59. Nageia Putranjiva. Roxb.

## HORTUS MALABARICUS.

#### VOL. VIII.

#### Tab. 1. Lagenaria vulgaris of D C. W & A. Cucurbita Lagenaria of Lin. Roxb.

Poiret has quoted this figure for a variety of C. Lagenaria, which is cultivated in the Isle of France, and Roxburgh says, 'The shape of the fruit varies much, from that of a flask to round and cylindric.'

- 2. Cucurbita maxima. W. & A. C. melopepo. Roxb. (not Lin.)
- This plant of Rheede's, as remarked both by Commeline and Plukenet, is the Cucurbita asperifolia non fisso of Bauhin's Historia (i. e., C. maxima of Duchesne), and for C. Melopepo Linnæus has quoted the C. clypeiformis sive Siciliana of Bauhin, which is quite a different species.
- Benincasa cerifera. DC. Cucurbita Pepo. Roxb. (not Lin.)
   C. Camolenga. Ham. MS.

Roxburgh mistook this plant for the Linnean C. Pepo; and, according to Plukenet, it is the Pepo oblongus of Bauhin, which Linnæus has quoted for a variety of that species.

- 4. Lagenaria vulgaris—Varieties. W. & A.
  - These figures are quoted with queries by Dennstedt for the Linnean Cucumis Dudaim and Cucurbita ovifera; and in Sir W. Jones's copy at the Athenæum, tab. iv. is marked C. colycinthus. By Lamarck they were both considered to be unknown species of Cucumis. See the foregoing note on tab. i.
- 6. Cucumis sativus of Lin. Roxb.

Lamarck was probably misled by a remark of Commeline's, to consider this (as well as tab. 4 and 5) to be an unknown species of Cucumis.

- 7. Luffa acutangula. Roxb. L. fœtida. Willd. Cucumis acutangulus of Lin. Burman.
  - This figure is quoted by several authors for *L. factida*, which, though retained as a separate species by De Candolle, appears to me to be nothing more at most than a variety of *L. acutangula*, and there is much less difference between them than may be expected to occur in a plant so very generally cultivated in India.
- 8. Luffa Cattu-picinna. DC. L. pentandra. Roxb.

Quoted with a query by Dennstedt for Momordica Luffa, and Linnæus appears to have confounded more than one species under that name. It is quoted for his L. pentandra by Roxburgh, who says that he only found it in a cultivated state, and it may be queried whether L. pentandra of Don's Dictionary is the same species.

- Tab. 9. Momordica Charantia. Lin.
  - 10. Momordica Charantia Var. Lin. M. muricata. Willd.

Wight and Arnott say that there are innumerable intermediate gradations between M. Charantia and M. muricata; and such varieties may be expected in a species which is said by Roxburgh to be cultivated in all the warmer parts of Asia. Mr. G. Don has separated the M. muricata of Willdenow and of Roxburgh, though both these authors have quoted this figure, and has given the name of M. Roxburghiana to the latter, but they appear to me to be nothing more than different varieties of M. Charantia.

- 11. Momordica monadelpha of Roxb. Ham. MS. Variety?
  - Misquoted by Dennstedt for *M. dioica* of Roxburgh; and it appears to me that Dr. Hamilton has erred in considering it to be the *M. monadelpha* of Roxburgh (i. e., *Coccinea indica*, see tab. 14); nor can I find any other species that answers at all correctly to this figure and description of Rheede's.
- 12. Momordica dioica of Roxb. female. W. & A. M. hispida. Denn. M. Pavelia. Ham. MS.
- Bryonia scabrella of Lin. Sup. Plant. Var. W. & A.
   This plate is marked Bryonia scabrella in Sir W. Jones's copy at the Athenaum.
- 14. Coccinea indica. W. & A. Bryonia grandis of Lin. Var. Lam. Momordica Covel. Denn.
- 15. Trichosanthes cucumerina. Lin.
- 16. Trichosanthes cuspidata. Lam. T. caudata. Willd.

The descriptions of *T. cuspidata* and *T. caudata* appear all to have been derived from Rheede; and Wight and Arnott have suggested that the figure may have been taken from a young plant of *T. nervifoliu*.

- 17. Trichosanthes nervifolia. Lin.
- 18. Momordica dioica. Roxb. male. W. & A. M. tuberosa.

  Denn.
- 19. Bryonia laciniosa. Lin.

Linnæus, in the Species Plantarum, has quoted this figure for *B. laciniosa*, and he probably did not intend to include Rheede's with the other synonyms which are cancelled in the Mantissa. Roxburgh is, however, the only modern authority for this reference.

 $\begin{bmatrix} 20. \\ 21. \end{bmatrix}$  Modecca palmata. *Lam.* M. tuberosa. *Roxb*.

Tab. 20 is erroneously quoted for a variety of the Linnean Convolvulus paniculatus by Burman and others, and by Romer and Schultes for a variety of Ipomea paniculata.

- 22. Modecca palmata. Var. Motta. D C.
- 23. Modecca palmata, planta junior. W. & A. M. integrifolia. Lam. M. acuminata? Blume.

Roxburgh says that the leaves of young plants of his M. tuberosa are simply cordate, and afterwards become palmate, with from three to five lobes. Sir

J. E. Smith objected to Modecca as 'a barbarous name,' and proposed Blepharanthes in its stead, 'to preserve an analogy with Trichosanthes.' This figure is erroneously quoted by Dennstedt for the Convolvulus gemellus of Vahl.

#### Strychnos colubrina of Lin. Burman. Tab. 24.

For S. colubrina Linnæus has quoted Rheede's name for this plant, and has coupled it with 'vol. vii. tab. 5,' which error has led to much confusion in the Synonomy.

- Aristolochia indica. Lin. 25.
- Bryonia umbellata. Willd. B. Rheedii. Blume. 26. Momordica umbellata of Roxb.

Quoted for B. umbellata with a query by Willdenow and others, and as observed by Poiret, 'les Pedoncles ne sout point en ombelle;' but Rheede has figured a female plant, and Roxburgh says that males only have the flowers umbellate.

Merremia convolvulacea. Denn. 27.

Quoted with some doubt by Dr. Hamilton for his Convolvulus herederifolius. which may probably be the Evolvulus hederaceus of Burman, and C. flavus of Willdenow, but Rheede's plant has tendrils, and in other points differs.

Cardiospermum Halicacabum of Lin. Burman.

By Lamarck it is quoted for a variety of C. Halicacabum.

29. Bauhinia scandens. Lin. B. auguina. Roxb.

Linnæus has only quoted tab. 29, which has the appearance of a seedling, for B. scandens; whereas it is plain, from the remainder of his quotation, that the Naga mu valli, tab. 30, was intended, and this error may probably have led Roxburgh to give the name of B. scandens to the Folium linguæ of Rumphius. which is the B. lingua of De Candolle. Tab. 29 is strangely quoted by Dennstedt for the Linnean B. divaricata.

32. Entada Pursætha. DC. Mimosa scandens. Roxb. (not Lin.) 33. Acacia scandens. Denn. 34.

These figures, though quoted by Linnæus for his Mimosa scandens, belong to his M. Entada, and the Linnean M. scandens is the Gigalobium scandens of Browne's Jamaica, and the error originated in Browne's reference to these figures for that species.

Mucuna prurita. Hooker. M. pruriens. DC. Carpopogon 35. pruriens. Roxb. Carcara pruritus. Rumphius.

Although Linnæus has quoted this figure, his Dolichos pruriens is founded on an American plant of Jacquin's; and Sir W. Hooker, in the Botanical Miscellany, vol. ii. p. 350, has shewn good grounds for believing that this East Indian plant is more than a variety. In the Almagestum, Plukenet has placed them separate, with the names of Phaseolus americanus, and Phaseolus orientalis.

Mucuna gigantea. DC. Carpopogon giganteum. Roxb. 36. Dolichos giganteus. Willd.

Misquoted by Linnaus for D. urens, and also for D. altissimus; both of which are natives of America, and belong to Mucuna.

- Tab. 37. Phaseolus trinervius. W. & A.
  - Quoted by Dennstedt with a query for Dolichos pilosus of Willdenow.
  - 38. Clitoria Ternatea. Lin. C. Ternatea Var. Lam. Ternatea indica. St. Hilaire.
    - This is the variety 'foliolis obtusioribus, flore albido' of Lamarck, and the blue flowered variety is figured in Rumphius, vol. v. tab. 31.
  - 39. Abrus precatorius. Lin. Syst. Nat. Glycine Abrus. Lin. Sp. Plant.
  - 40. Hedysarum? horridum. *Ham. MS*. Amerimnum horridum. *Denn*.
  - 41. Dolichos Sinensis Var.? W. & A. D. Catjang. Roxb. (not Lin.)

    For D. Catjang Burman has quoted Rumphius v. tab. 139, of which the Amboyna name is Catjang, as well as the present figure of Rheede's, and Linnæus has adopted Burman's species almost verbatim in his Mantissa. The specific name belongs therefore to the Amboyna plant, and D. Catjang of the Hortus Kewensis and of Roxburgh's Flora Indica (in both of which works the reference to Rumphius is omitted) may probably be a variety of the Linnean D. sinensis, as we are informed by Roxburgh that Konig considered it to be.
  - 42. Phaseolus rostratus. Wallich. P. alatus. Roxb. (not Lin.)
    This figure approaches very near the figure and description in the Hortus
    Ethamensis, from which Linnæus most probably derived his knowledge of
    the P. alatus; but Dr. Wallich thinks that P. rostratus is sufficiently distinguished by the less spreading alæ and curved pods. It is quoted with a query
    by Dennstedt for the Linnean P. farinosus.
  - 43. Canavalia obtusifolia. D C. Dolichos obtusifolius. Lam. D. rotundifolius. Vahl.
  - 44. Canavalia gladiata. W. & A. Dolichos gladiatus. Willd.
    - Several authors have followed Linnæus in quoting this figure for *Dolichos ensi*formis, a name which he derived from Sloane's description of a West Indian species, and if the oriental plant is more than a variety, the name of ensiformis belongs to the former.
  - 45. Canavalia virosa. W. & A. C. gladiata Var. D C. Dolichos virosus. Roxb.
    - Misquoted by Dennstedt for Dolichos cultratus of Thunberg.
  - 46. Pongamia uliginosa of D.C. W. & A. Dalbergia heterophylla of Willd. Denn.
  - 47. 48. Zanonia indica. *Lin.* 49.
  - 50. Phaseolus Mungo of Lin. W. & A. P. Max. Roxb. (not Lin.)
    Dolichos pubescens of Willd.? Denn.
    - Quoted by Roxburgh for the Linnean P. Max, but it answers better to the description of P. Mungo, in the Mantissa
  - 51. Dioscorea sativa. Lin.

## HORTUS MALABARICUS.

#### VOL. IX.

- Tab. 1. Nerium odorum. Lin. N. odoratum. Lam.
  - 3. Wrightia coalita. Ham. MS. W. tomentosa. G. Don.
  - 4. Nerium tomentosum. Roxb. Periploca arborea. Denn. Wrightia tomentosa of Ræmer and Schultes is a different species.
  - 5. Echites macrophylla. Roxb. Chonemorpha macrophylla of 6. G. Don.

Dennsteddt has queried whether it may not be the Linnean Pergularia tomentosa.

 Holostemma Adakodien. R. Brown. H. Rheedii. Wallich. Asclepias annularia. Roxb.

Mistaken by Dennstedt for the *Periploca tunicata* of Willdenow. In the figure the leaves are misrepresented as alternate, but Rheede has described them 'bina et bina.'

- 8. Marsdenia tinctoria of R. Brown.?
- Dr. Hamilton in his MS. has mentioned its affinity with Asclepias tinctoria, or A. tingens of Roxburgh, and if not the former, it is probably an undescribed species of Marsdenia. It is quoted with a query by Dennstedt for the Echites tomentosa of Vahl.
- Cudicia gyrandra. Ham. MS. Periploca albo-flavescens. Denn.
- 10. Cudicia trichotoma. Ham. MS.

Misquoted by Dennstedt for Periploca cordata of Lamarck. In Don's Dictionary Cudicia trichotoma of Hamilton is said to be the Parsonsia ovata of Wallich, but this figure is not referred to.

- 11. Cryptolepis Buchanani of R. & S. Wight. Periploca dubia.

  Burman. Nerium reticulatum. Roxb.
  - It is quoted by Poiret for his Periploca mauritiana, which is a very uncertain species.
- 12. Echites malabarica. Lam. E. palvalli. Denn. Chonemorpha? malabarica. G. Don.

- Tab. 13. Hoya pendula. Wight. Asclepias pendula. Roxb.
  - Misquoted by Jacquin and most other authors for Asclepias alexiaca, and in Rees's Cyclopædia for A. volubilis.
  - 14. Aganosma Roxburghii. G. Don. Echites caryophyllata. Roxb.
    - Misquoted by Forster, Willdenow, Persoon, and others, for Echites costata, i. e. Alstonia costata of Brown. See note in vol. vii. tab. 55.
  - 15. Hoya viridiflora. R. Brown. Apocynum tiliæfolium. Lam. Asclepias volubilis (of Lin. Sup.) Roxb.
    - Misquoted by Dennstedt for the Linnean Cynanchum capense, and by Mr. G. Don the H. viridiflara and A. tiliæfolium are arranged as separate species, with a reference to this figure for both.
  - 16. Ceropegia Candelabrum. Lin.
    - All our knowledge of *C. Candelabrum* appears to have been wholly derived from this figure, and it may probably be nothing more than an unusually luxuriant plant, or variety of the species which Roxburgh in his Plants of Coromandel has figured with the name of *C. tuberosa*.
  - 17. Asclepias tetrapetala Denn.
    - Quoted by Roxburgh for his Asclepias microphylla, i. e. Pentatropis microphylla of Wight, but Rheede has figured and described the flowers to be tetrapetalous.
  - 18. Æschynomene indica. Lin. Hedysarum Neli-tali. Roxb.
  - Biophytum sensitivum. D C. Oxalis sensitiva. Lin.
     Roxburgh says that this is a young plant, and that Rumphius, vol. v. tab. 104,
     f. 2, represents an old one.
  - Desmanthus natans. Willd. Mimosa natans of Vahl. Roxb.
     M. prostrata Var. Lam. M. humifusa. Konig's MS.
    - Misquoted by Linnæus for Æschynomene pumila, and it is quoted by Willdenow both for Desmanthus natans and for D. virgata. It is also misquoted by Linnæus in the Mantissa for Mimosa virgata, by Gærtner for Acacia virgata, and by Gmelin for Æschynomene herbacea. The Mimosa natans of Linnæus (Sup. Plant.) is different, and is the D. triquetrus of Willdenow.
  - 21. Cassia Klenii. W. & A.
    - Linnæus has quoted the foregoing 'Niti-Todda-vaddi, tab. 20,' but ithis figure has been generally referred to in its stead for the Æschynomene pumila, and neither the one nor the other accords at all well with his description.
  - 22. Tephrosia? Rheedii. DC.
    - Mistaken by Dennstedt for the Æschynomene sensitiva of Swartz, and I apprehend that all De Candolle's knowledge of the species has been derived from Rheede.
  - 23. Polanisia viscosa. DC. Cleome viscosa. Lin.
    - Quoted by Wight and Arnott for Polanisia felina, i. e., Cleome felina of the Supplementum Plantarum, and by Linnæus, and I believe every other author, for C. viscosa. Except that Rheede has not mentioned the viscidity, it answers to Martyn's plant, which Linnæus, both in the Flora Zeylanica and the Species

Plantarum, has quoted, and its flowers are yellow, while those of *C. felina* are red, and it moreover wants the singular roughness of the leaves resembling a cat's tongue, from which the name of the latter species is taken.

# Tab. 24. Gynandropsis pentaphylla of D C. Cleome pentaphylla. Lin.

Whether Linnæus has not erred in quoting Sloane's plant as synonymous with Rheede's may be doubted, and the West Indian specimens which I have seen differ in having the leaves much longer in proportion to the breadth, and their edges more or less serrated.

- 25. Crotalaria retusa. Lin.
- 26. Crotalaria tridentata. Rees's Cyc. C. juncea. Lam. (not Lin.) C. sericea? W. & A.

Linnæus, for C. juncea, has quoted the present plant of Rheede's, and also another of Plukenet's, to which the description much better applies. By Lamarck and Persoon the name of C. juncea is however retained for Rheede's plant, and Lamarck has given the name of C. Bengalensis to Plukenet's, whereas in Rees's Cyclopedia the former is named C. tridentata, and C. juncea is assigned to the latter.

- 27. Crotalaria Laburnifolia. Lin.
- 28. Crotalaria quinquefolia. Lin.
- 29. Crotalaria verrucosa. Lin. C. angulosa. Lam.
- 30. Indigofera hirsuta. Lin.
- 31. Gratiola verbenæfolia. Ham. MS.

Linnæus and most other authors have quoted this figure with a query for Impatiens oppositifolia; and, in the opinion of Wight and Arnott, it 'belongs to Scrophularineæ, and is, perhaps, a species of Bonnaya.'

32. Alysicarpus bupleurifolius of D.C. Hedysarum bupleurifolium of Lin. Indigofera simplicifolia. Denn.

Plukenet has noticed its affinity with his Scorpioides maderaspatana, which is the Hedysarum bupleurifolium of Linnæus; and this figure has not been at all noticed by any other author, except that it has been made into a species of Indigofera by Dennstedt.

- 33. Catharanthus pusillus. G. Don. Vinca pusilla. Lin. Sup. Vinca parviflora. Retz.
- 34. Cleome monophylla. Lin.
- 35. Capsicum annuum. Lin.

Misquoted by Burman for C. frutescens of Linnæus.

36.

For Indigofera glabra several authors have followed Linnæus in quoting the 'Nir Pulli, vol. ix. t. 67,' by which the present figure is obviously intended, but Linnæus has also quoted a plant of Plukenet's, with which his specific character far better accords. By Lamarck it is quoted for I. Hedysaroides, which Wight and Arnott considered to be a variety of I. trita, and they have queried whether this plant of Rheede's may not be their I. pedicillata, but it does not correctly answer to either.

Tab. 37. Indigofera Aspalathoides of Vahl. D C. I. aspalathifolia. Roxb. Aspalathus indicus. Lin.

Roxburgh has quoted this figure both for I. aspalathifolia and for I. uniflora.

- 38. Smithia sensitiva of Salisbury. W. & A.

  Misquoted by Burman for his Aspalathus persica, i. e., Lotus Garcini of De Candolle.
- 39. Dentella repens of Forster. W. & A. Heymia rigida. Denn. It is the same as Rumphius's vol. v., tab. 170, fig. 4, which Linnæus has quoted for his Oldenlandia repens.
- Melilotus indica Var. Desr. Trifolium indicum. Roxb.
   It is T. indicum Var. B. of Linnæus, and is at least very nearly allied to M. leucantha of De Candolle.
- 41. Barleria Prionitis. Lin.
- 42. Justicia Gendarussa. Burman. Gendarussa vulgaris. N. Esen.

43.

Most authors have followed the Species Plantarum in quoting this for Justicia bivalvis or Dicliptera bivalvis, but Linnæus has himself remarked 'Rheedi Planta foliis serratis et flore albo differt,' nor have I found any other species that answers better to Rheede's description.

- 44. Justicia latifolia? Vahl. J. atropurpurea. Denn.
  Vahl of his'J. latifolia says, 'Accedit ad Katu Karivi Hort. Mal. vol ix., p. 83, tab. 44, differe tantum videtur quod flores in mea minores,' and Willdenow has omitted the reference.
- 45. Ruellia Zeylanica. Roxb.

Dennstedt considers it to be the *R. intrusa* of Vahl, and in Burman's Index it is called *R. Digitalis*, with a reference to the *Digitalis Zeylanica* of his Thesaurus; but Burman's description, with regard to the leaves, answers better to the *R. anisophylla* of Hooker's Exotic Botany.

- 46. Justicia Echioides. Lin. Andrographis Echioides Var. N. Esen.
- 47. Balsamina fasciculata. DC. Impatiens fasciculata. Lam. Erroneously quoted by Burman in his Index for the Linnean I. triffora.
- 48. Balsamina latifolia. D C. Impatiens latifolia. Lin.
- 49. Balsamina Tilo. D.C. Impatiens Rheedei. W. & A. Impatiens fasiculata Var. Lam.
- 50. Balsamina minor. DC.

This may probably be the I. rufescens of Wight and Arnott.

Balsamina minor Var. DC. Impatiens Kleinii. W. & A.
 Lamarck has quoted this and the preceding tab. 50 for a variety of his I. fasciculata.

Tab. 52. Balsamina hortensis. St. Hil. Impatiens Balsamina. Lin.

Roxburgh, though he has quoted this figure for I. Balsamina, says that it as much resembles his I. tripetala.

- 53. Torenia hians of Roxb. T. Roxburghii. Ham. MS.
  - Quoted by Linnæus, Burman, Willdenow, Smith, and most other authors for *T. asiatica*, which is a Chinese plant, first gathered by Osbeck in rice fields near Canton, and is described with oval emarginated leaves, on very short footstalks, whereas in this plant they have long footstalks, and are cordate and hairy.
- 54. Sesamum orientale. Lin.
- 55. Sesamum orientale Var. Roxb. S. indicum of Lin.

Quoted in Burman's Index by the name of S. malabaricum, with an erroneous reference to the Flora Indica.

- Justicia paniculata. Burman. Andrographis paniculata. N. Esen.
  - In the Mantissa (p. 317), this is said to be J. gangetica, which Linnæus has described with ovate leaves, and it is quoted by the younger Linnæus for Dianthera malabarica, i. e., Peristrophe bicalyculata of Nees Von Esenbeck.
- 57. Bonnaya integrifolia. Gratiolia integrifolia. Roxb.
  - Quoted in the Mantissa for G. rotundifolia (i.e., Bonnaya rotundifolia of Bentham) of which it is probably nothing more than a variety, and Linnæus has described the leaves of that species 'serratura una alterave obsoleta,'
- 58. Vandellia crustacea of Bentham, G. Don. Gratiola lucida of Willd. Capraria crustacea of Lin. Mant.

By Burman it is misquoted for the Linnean Ruellia antipoda.

- Bonnaya brachiata of Bentham. G. Don. Gratiola serrata. Roxb.
  - Quoted by Linnæus for his Ruellia antipoda, which is a very uncertain species, and erroneously by Burman for his R. alternata, and by Willdenow and others for Gratiola veronicifolia.
- 60. Ionidium enneaspermum. Vent. Viola enneasperma. Lin.
  - Quoted for the Viola enneasperma by Linnæus, and by all other authors except Wight and Arnott, who consider it to be the Linnean V. suffruticosa, which may probably be nothing more than a variety, and in the late General Hardwick's copy, the following remark is written on this plate, 'Planta plerumque procumbens, in montosis tamen sæpe erecta est.' There is not any specimen of V. suffruticosa in the Linnean Herbarium.
- 61. Polygala arvensis Var. W. & A.
  - Misquoted by De Candolle for *Ionidium leptorhizum*, and it appears from his description to belong to *Polygala Vahliana* rather than the *P. arvensis* of De Candolle. By Burman it is misquoted for a variety of his *Ruelliu erecta*.
- 62. Crossandra infundibuliformis. N. Esen. Ruellia infundibuliformis, Roxb. Justicia infundibuliformis. Lin.

# Tab. 63. Aneilema nudicaulis. R. Brown. Tradescantia malabarica. Lin. Commelina nudicaulis of Burman.

Quoted by Burman both for T. malabarica, and erroneously for the Linnean C. nudiflora, instead of his own C. nudicaulis. It is quoted in the Hortus Britannicus for C. nudicaulis, and again for T. malabarica, and erroneously by Roxburgh for C. nudiflora. Rheede appears to have confounded the nectaries with the filaments, and has described this species to be pentandrous; and vol. x. tab. 19, to which it is very neary allied, is described with six stamens.

64.

Quoted by Linnæus, Burman, Willdenow, Aiton, Roxburgh, and most other authors for Ruellia ringens (i. e., Hygrophila ringens of Brown), but Roxburgh says that 'the divisions of the border of the corol are too long and too sharp,' and Mr. Brown has pronounced it to be altogether a different plant, nor have I met with any other reference to this figure.

65. Sonerila maculata. Roxb. Cassebeeria maculata. Denn.

Arranged separately from S. maculata by Wight and Arnott with the name of S. Rheedii.

66. Buchnera asiatica of Lin. Roxb.

If intended for B. asiatica, this figure is far from correct, and by Dennstedt it is quoted with a query for the Lobelia pubescens of Aiton.

67. Polygala crotalarioides of DC.?

In Dr. Hamilton's MS. it is suggested that this may be Polygala telephoides of Willdenow, but it answers better in the opinion both of Mr. Don and myself to a specimen which in Roxburgh's Herbarium has been marked P. crotalarioides. By an obviously typographical error, Willdenow has quoted tab. 67 instead of tab. 36, for Indigofera glabra, and so Dennstedt has given that name to this plate.

68. Centranthera hispida.? Wallich. Capraria rigida. Ham. MS. Purshia ciliata. Denn.

Quoted by Roxburgh for his Torenia cordifolia, and is more likely to be a variety of his Digitalis stricta, i. e. Centranthera hispida of Wallich, but does not well accord with either. The genus Purshia of Dennstedt and of all other authors must be very different.

- 69. Justicia nasuta. Lin. Rhinacanthus communis. N. Esen.
- 70. Utricularia reticulata. Smith.

  Misquoted for U.carulea by Linnæus and most other authors.
- 71. Xyris indica. Lin.
- 72. Gomphrena hispida. Lin.
- 73. Riedleia corchorifolia. W. & A. Melochia corchorifolia. Lin.

As remarked by Dr. Roxburgh it is far from a good figure.

74. Coleus aromaticus of Bentham.

Rheede has not noticed either the flower or the fruit, but Rumphius considered it to be the same as his vol. v. t. 102, f. 2, which is Coleus aromaticus.

Tab. 75.

Rheede says 'Flores nulli sunt,' and equally with tab. 74 it may probably belong to the Ocymoideæ.

76. Spermacoce scabra. Willd.

Willdenow doubted whether Rheede may not have figured S. scabra, and by mistake have described a plant of S. hispida; and Wight and Arnott have adduced sufficient evidence to prove that the former is only a variety of the latter. Linnæus has suggested that it may be S. hispida, and it is generally quoted for S. scabra by other authors; but Dr. Hamilton, without sufficient grounds, has queried whether the figure is not more like Hydrophylax maritima.

77. Entada pursætha, planta junior. W. & A. Entada monostachya. DC. Mimosa Entada. Lin. M. scandens. Roxb.

By Lamarck it is quoted for a variety of the Linnean E. polystachia, which is a native of America, and it is nothing more than a young plant of the species figured in vol. viii. tab. 32, 33, and 34, although it has been arranged separately with the name of E. monostachya by De Candolle.

78. Bergia verticillata. Willd. B. capensis of Lin. Mant. Poiret. B. aquatica. Roxb. Elatine verticillata. W. & A. Spergula indica. Konig's MS. Tarania verticillata. Ham. MS.

Roxburgh, in the Plants of Coromandel, has referred to this figure for Bergia aquatica, and in the Flora Indica both for B. verticillata, and erroneously for Capraria gratissima; for the latter species, under the name of Limnophila Roxburghii, it is also quoted by Mr. G. Don. Linnæus appears to have mistaken the habitat, and to have misnamed this species B. capensis.

79. Tamara hæmisphærica. Ham. MS.

Quoted with a query by Dennstedt for the Linnean Achyranthes prostrata, and Commeline more correctly says of it 'Planta sui generis est, sine conspecie.'

80. Rhynchoglossum obliquum. Blume. Loxotis obliqua of Bentham.?

Mr. Don shewed me a specimen at the Linnean Society which much resembled this figure, and which perhaps erroneously was marked 'Wulfenia notoniana of Wallich.

81. Rotala verticillaris. Lin.

Originating probably from a note in the Hortus Cliffortianus, this figure has been inadvertently quoted in the Encyclopedie Methodique for Anthospermum Æthiopicum.

- 82. Zornia diphylla. Persoon. Z. angustifolia. Smith. Hedysarum diphyllum. Lin.
- 83. Zornia zeylonensis of Persoon. W. & A. Z. conjugata. Smith.
- 84. Ammannia prostrata. Ham. MS.

Dr. Hamilton has suggested that it may possibly be a variety of the A. verticillata of Lamarck, or the A. baccifera of Linnæus, but it does not well accord with Lamarck's figure, nor at all with the reference to Plukenet in the Species Plantarum.

Tab. 85. Linmophila Chamædrifolia. G. Don. Gratiola Chamædrifolia. Lam. G. trifida Var. Vahl. Ambulia paniculata. Ham. MS.

Misquoted by Linnæus and Burman for *Gratiola virgineana*, by Willdenow for *G. trifida*, and by Roxburgh, jointly with vol. xii. t. 36, for his *Columnea balsamica*.

86. Begonia malabarica. Lam.

Rheede has described the female flower with only three petals, and Linnæus, in the Mantissa, has noticed this singularity; and Dryander has suggested that it may be an accidental deformity. The B. malabarica of Roxburgh, for which he has quoted this figure, has four petals in both the sexes.

87. Artanema Sesamoides. *Bentham*. Achimenes Sesamoides. *Vahl*. Diceros longifolius. *Persoon*. Columnea longifolia. *Lin*. Sesamum Javanicum. *Burman*.

## HORTUS MALABARICUS.

#### VOL. X.

Tab. 1. Hibiscus hirtus of Lin. Poiret. H. phœniceus. Roxb. (not Lin.) H. rosa malabaricus. Bot. Reg.

Linnæus has introduced much confusion in the Synonomy by quoting this figure for *Pentapetes phænicea* instead of *Hibiscus hirtus*, and it is encreased in the Supplementum Plantarum, where the American *H. phœniceus* of Jacquin is confounded with *H. hirtus*. The *H. phœniceus* of Roxburgh, for which he has quoted the present figures, is *H. hirtus*; and by Wight and Arnott it is inadvertently quoted both for *H. hirtus* and for *Pentapetes phœnicea*.

- 2. Urena sinuata. Lin.

  Quoted by Burman for the Linnean U. lobata.
- 3. Loranthus elasticus. Lam. Scurrula elastica. G. Don.
- 4. Loranthus longiflorus. Lam. Scurrula longiflora. G. Don. Roxburgh has not quoted this figure, but it is his L. bicolor.
- 5. Loranthus Kanneli. W. & A.

Wight and Arnott have confirmed the suggestion of Schultes that it is distinct from L. globosus (i. e. Elytranthe globosa of G. Don), for which it has been quoted by Roxburgh and De Candolle, and all our knowledge of the species is derived from Rheede; by Dennstedt it is misquoted for the L. Buddleioides of Lamarck.

- 6. Limnophila gratissima. Blume.? Ambulia aromatica. Lam. Gmelin has not quoted the Hortus Malabaricus, but his Ambulia monosperma, as well as Lamarck's A. aromatica, appear to have been derived from this figure, and though Manga-nari is Rheede's name, yet in his Description he says that the plant is called Ambuli by the Bramins.
- 7. Elephantopus scaber. Lin.

It is sufficiently shewn by the first two lines of Rheede's Description, that this plant is the type of the genus Elephantopus, and it has been generally referred to by other authors as well as Linnæus for E. scaber; but, from his other Synonyms and description in the Hortus Cliffortianus, it is probable that the plant which he described may have been the E. carolinianus, or some other American species.

8. Plumbago zeylanica. Lin.

- Tab. 9. Plumbago rosea. Lin.
  - 10. Asparagus racemosus of Willd. Ham. MS.

Linnæus, Willdenow, and most other authors, have quoted this figure for A. sarmentosus, but that species is described 'foliis solitariis,' whereas Rheede has described the leaves 'bina, terna, quaterna congregatim,' and though he has not quoted Rheede, it is certainly the A. racemosus of Roxburgh.

- 11. Alternanthera sessilis. R. Brown. Achyranthes triandra. Roxb. Illecebrum sessile. Lin.
- 12. Leersia aristata. Roxb.
- Cyanotis axillaris. D. Don. Commelina axillaris.
   Lin. Sp. Pl. Tradescantia axillaris of Lin. Mant.
- 14. Herpestis monnieri of Bentham. G. Don. Bramia indica. Lam. Capraria Bramia. Ham. MS.
- 15. Phyllanthus Niruri. Lin.
- \* 16. Phyllanthus Urinaria. Lin.

Poiret, without sufficient grounds, doubted whether this is P. Urinaria, or more than a variety of P. Niruri.

17. Blumea anagallidifolia of DC.

Quoted with a query by Dennstedt for Conyza patula of Aiton, and De Candolle suggests that B. anagallidifolia may be the C. scabra of Linnæus's Mantissa. Dr. Wight, for B. anagallidifolia, has referred to the following tab. 18, and his reference to Plukenet is equally erroneous.

18. Sida retusa of Lin. Burman.

It is quoted with a query by Dennstedt for Pavonia pramorsa of Willdenow.

19. Aneilema nudiflora of Hort. Brit. Commelina nudiflora of Lin, Mant. Lam.

See the note on vol. ix. tab. 63.

- 20. Drosera indica. Lin.
- 21. Geophila diversifolia. D.C. G. reniformis. W. & A. (not D.C.) Psychotria herbacea. Roxb. (not Lin.)

The Linnean Psychotria herbacea is the Psychotrophum herbaceum, &c. of Browne's Jamaica, and Linnæus, Willdenow, and others, have copied an error of Browne's in quoting this figure for that species. To the present species the name of G. reniformis was first given by Professor Don in the Flora Nepalensis, but he has omitted any reference to Rheede, and erred by quoting the P. herbacea of Linnæus; in this another error may probably have originated, for De Candolle (referring to a Berlin Periodical) has used the name of G. reniformis for the American plant, and given that of G. diversifolia to Rheede's.

- 22. Naregamia alata. W. & A.
- 23. Hedyotis Heynei. W. & A. H. herbacea Var. Smith.

This figure is quoted by De Candolle jointly with tab. 35 for the Linnean *H. herbacea*, and it was considered to be a variety of that species by Sir J. E. Smith and Willdenow.

# Tab. 24. Pharuaceum Spergula, Mollugo Spergula of Lin. W. & A.

Sir J. E. Smith, in Rees's Cyclopedia, has shewn that the name of Mollugo in the margin of the Mantissa, p. 561, is a mere lapsus, and that Linnæus, in removing his M. Spergula to Pharnaceum had no intention to change the specific name. The name of P. Mollugo he had before occupied in the Species Plantarum for an Ethiopian plant, 'foliis linearibus,' and for this P. Mollugo and for the P. glomeratum of the Supplementum Plantarum the same figure of Plukenet's is quoted.

#### 25. Hedyotis racemosa. Lam. H. Rheedii. W. & A. Oldenlandia paniculata of Lin.

Rheede has described this plant with two, whereas H. Rheedii is described with four seeds in each capsule, and there is nothing to shew that Linnæus, when he called it an Oldenlandia, had ever seen a ripe seed yessel.

# 26. Pharnaceum triphyllum. Denn. Mollugo triphylla of Loureiro. W. & A. M. dimidiata. Ham. MS.

Quoted with a query by Burman for Oldenlandia paniculata, though it approaches much nearer to his figure of the Linnean Mollugo stricta, and it is far from improbable that M. triphylla may be only a variety of the latter.

#### 27. Phyllanthus depressus. Ham. MS.

Roxburgh has quoted this figure (as I suspect accidentally instead of vol. ii. t. 27) for the *P. multiflorus* of Willdenow, and he may probably have changed the name of his plant from *P. scandens* on discovering it to be Willdenow's species. See note on vol. ii. t. 27. The present plant in Dr. Hamilton's Commentary, at the Linnean Society, is said to be the '*P. depressus* of Roxburgh's MS.,' and it is quoted with a query by Dennstedt for the *P. debilis* of Willdenow; but, from Willdenow's reference to Plukenet, it is more likely to be his *P. dunetosus*.

## 28. Hydrolea Zeylanica. Vahl. Nama Zeylanica of Lin. Roxb. Steris Javana of Lin. Mant. Poiret.

#### 29. Aerua Tandalo. Ham. MS.

Either as an Achyranthes, a Celosia, an Illebrum, or an Aerua, authors have generally followed Linnæus in quoting this figure for his Achyranthes lanata, and I much doubt whether the A. Tandalo is more than a variety.

#### 30. Hedyotis subcordata. Denn.

Dennstedt's species, which he has called 'H. subcordata, mihi,' is most probably founded wholly on this figure and description of Rheede's, and it may be doubted whether any other Professor of Botany would have taken it for an Hedyotis. It most probably belongs to the Euphorbiaceæ, and is considered to be a Phyllanthus by Professor Don.

# 31. Portulacca meridiana of Lin. Supt. Poiret. P. quadrifida Var. DC.

Misquoted by Burman for his Oldenlandia repens, in which he has been followed by Lamarck; for Oldenlandia depressa by Willdenow, and for Hedyotis depressa by Ræmer and Schultes. It is quoted by Wight and Arnott for P. quadrifida of Linnæus's Mantissa, and they, as well as De Candolle, considor P. meridiana and P. quadrifida to be the same species.

#### Tab. 32. Hedyotis auricularia. Lin.

Quoted by Lamarck for *H. hirsuta*, i. e. Oldenlandia hirsuta of Linnæus's Supplementum Plantarum, and according to Wight and Arnott it is not distinct from *H. auricularia*.

### 33. Euphorbia foliata. Ham. MS.

Commeline's error in taking this figure for a Veronica was detected by Plukenet, who referred it to Tithymalus.

- 34. Hemidesmus indicus. Wight. Asclepias pseudosarsa. Roxb.
  - Misquoted for the Linnean Periploca tenuifolia by Burman, which error Linnæus has adopted in his Mantissa, and by Lamarck and some others for Ceropegia tenuifolia, and it seems as if Roxburgh had been led by these errors to consider the Microloma lineare of R. Brown and this Hemidesmus to be the same species.
- 35. Hedyotis herbacea of Lin. Smith. H. Burmanniana. W.&A. Oldenlandia herbacea. DC.
  - Sir J. E. Smith, Willdenow, and De Candolle, have taken this to be the Linnean *H. herbacea*, and it answers very nearly to the description in the Flora Zeylanica. It is quoted by Burman for a Java plant, with the name of *Oldenlandia tenuifolia*, and Sir J. E. Smith considered it to be the same species.
- 36. Portulaca oleracea of Lin.

Commeline considered this to be the common Purslane, which is said by Dr. Hamilton to grow plentiful in India, especially in sandy places near the sea. Dr. Hamilton has found another species, the *P. lævis* of his Manuscript, and has described it to be not unlike this figure.

- 37. Gomphrena globosa. Lin. Mant.
- 38. Celosia argentea of Lin. Var. Roxb.

Quoted by Linnæus and most other authors for C. margaritacea, which is a West Indian species, and according to Roxburgh it is a variety of C. argentea, which is common in the corn fields of India. He says, 'Plants from the same seed have leaves of very various breadth, and are as often with as without the falcate stipules.'

39. Celosia argentea. Lin.

Poiret has quoted tab. 38 for C. argentea, and this figure for a variety 'foliis sublinearibus.'

- 40. Wollastonia biflora. D.C. Wedelia biflora. Wight. Verbesina biflora. Lin.
- 41. Eclipta prostrata of Lin. Mant. Roxb. Verbesina prostrata Var. Burman.

Linnæus has arranged this species as a Verbesina in the Species Plantarum, as a Cotula in the Systema Naturæ, and as an Eclipta in the Mantissa. Roxburgh says that Rheede's figure is 'tolerable for a young luxuriant plant,' and an observation of his has misled Dr. Wight to confound the American E. erecta with this species. Dennstedt, on slight grounds, has suggested that it may be the Verbesina dichotoma of Willdenow.

42. Wedelia calendulacea. D.C. Verbesina calendulacea of Lin. Burman.

### Tab. 43. Sphæranthus hirtus of Lam. Blume. S. mollis. Roxb.

It is nearly allied to S. indicus, for which it has been quoted by Linnæus and several other authors, but that plant is inodorous, whereas this is remarkably fragrant.

- 44. Chrysanthemum indicum. Lin. Pyrethrum indicum. DC. Matricaria indica. Desr.
- 45. Artemisia grata. D C.

Misquoted by Willdenow and others for Artemisia indica, and for a variety of Ambrosia artemisifolia by Lamarck.

- 46. Hydrocotyle asiatica. Lin.
- 47. Zapania nodiflora. Poiret. Verbesina nodiflora of Lin. Burman.

Linnœus may probably have confounded two species under the name of V. nodiflora, of which one is the American V. nodiflora of Bauhin, and the other is the
V. repens nodiflora of the Thesaurus Zeylanicus, for which Linnæas, in his
Flora Zeylanica, has retained Burman's reference to this figure, although it
is omitted in the Species Plantarum. Unless, therefore, this Malabar plant
should prove to be a variety, the name belongs to the American species, and
it is much unlike the Z. nodiflora from Chile, which is figured in Sweet's
Flower Garden, vol. vi. t. 225, and the figure of the Hortus Elthamensis
which Gærner has exclusively quoted for his Synedrella nodiflora.

- 48. Tiaridium velutinnm? Lehman. Heliotropium indicum. Roxb.
  - By Linnæus this species may probably have been confounded with the West Indian plant, under the name of *H. indicum* (i. e. *Tiaridium indicum*), and it is the *H. indicum* of Burman and Roxburgh, but differs materially from the Heliotrope which is common in our greenhouses.
- 49. Grangea maderaspatana. Wight. Cotula maderaspatana. Desf. Artemisia maderaspatana of Lin. Burman.

Grangea mucronata of Hamilton's MS. is probably the same species.

50. Torenia minuta. Blume.

Dennstedt has queried whether it may not be Gratiola repens of Swartz, but Rheede has described it with four stamens.

51. Euphorbia Androsæmoides. Denn.

In the copy of the Hortus Malabaricus, at the Linnean Society, this plate is marked E. dichotoma, but that species has serrulated leaves.

- Canscora perfoliata. Lam. Pladera perfoliata. Roxb. Pootia triflora. Denn.
- 53. Sida acuta. Burman.
- 54. Sida cordifolia of Lin. Burman.
- 55. Corchorus decemangularis of Roxb.?

To this figure I have not found any reference, and as remarked by Commeline 'florum delineatio cum descriptione multum discrepat.' Dr. Hamilton suspected that it might be Corchorus olitorius of Willdenow, and it more resembles a specimen of Roxburgh's C. decemangularis.

### Tab. 56. Pentapetes phænicea of Lin. Roxb.

Dennstedt suspects that it may be Sida angustifolia of Cavanilles.

57. Chiococca malabarica. Denn.

Referred to erroneously by Lamarck for his Isora parviflora, and by Roemer and Schultes for I. micrantha, which is the same species, and they are both quoted by De Candolle for Myonima multiflora; but the I. parviflora of Vahl, which Hooker has figured in the Botanical Miscellany, is quite different. Dennstedt's 'C. malabarica mihi,' I imagine, has been wholly founded on Rheede's description and figure; but, as the flowers are tetrapetalous, it cannot be a Chiococca, and I have been unable to find any plant that answers to it.

58. Euphorbia pallens. E. articulata. Denn.

This plant was considered both by Lamarck and Dr. Hamilton to be a dichotomous species of Euphorbia not elsewhere described; and as Lamarck's *E. articulata* is a different species, Dennstedt's name must be changed. Ben pala is Rheede's name, and it may be translated '*Euphorbia pallens*.

59. Desmochæta atropurpurea. D C. (Cat. Hort.) Achyranthes lappacea. Lin.

Quoted with a query by Lamarck for his A. styracifolia, which is nearly allied to, if not more than a variety of, D. atropurpurea. Linnæus and almost every other author has taken this to be the A. lappacea, but Jussieu considered vol. vii. tab. 43, to be that species.

60. Cannabis sativa of Lin. Burman.

Quoted by Lamarck for his C. indica, which appears, from Roxburgh's remarks, to be only a variety of C. sativa.

62. Vernonia pectiniformis. Wight. Vernonia (or Vassinea) fragilis. Ham. MS. Conyza serrulata. Lam.

It is quoted by Burman for a variety of the American Conyza odorata, and Dr. Hamilton has suggested that it should be removed from Vernonia with the generical name of Vassinea.

63. Decaneurum Epilegium? Wight.

Under the name of Verbesina Lavenia, or Lavenia erecta, this figure has been quoted by Linnæus (in the Mantissa), Burman, Willdenow, Smith, Roxburgh, and others, and De Candolle has mentioned its having some resemblance to Adenostemna viscosa, which is the same species, but it differs in having alternate leaves and pale blue flowers, and is by far more likely to be a Decaneurum. Dr. Hamilton has suggested, and I apprehend without sufficient grounds, that it may be a species of Balsamita, now unknown.

- 64. Vernonia cinerea Var. Wight. Conyza heterophylla. Lam. In Dr. Wight's opinion the Cacalia rotundifolia of Willdenow belongs to this species.
- 65. Pogostemon paniculatum. Bentham. Elsholtzia panicuculata. Willd. Hyssopus cristatus. Lam.

The leaves in this figure are not regularly opposite, and Lamarck considered it to be an accidental error of the artists.

 Polycarpæa spadicea. Lam. Lahaya spadicea. R. & S. Mollia spadicea. Willd. in Berlin Mag.

### Tab. 67. Almania nodiflora of Brown. Wight.

To the reference to this figure in Hooker's Journal, Dr. Wight has added 'pessime,' and Dennstedt has queried whether it may not be the *Illeccbrum capitatum* of Linnæus.

- 68. Emilia sonchifolia. D C. Cacalia sonchifolia, Lin.
- 69. Sida radicans. Cavanilles.

All Cavanilles's knowledge of this plant appears to have been derived from Rheede, and, as suggested by Wight and Arnott, it may not improbably be a variety of Roxburgh's S. qlutinosa.

70. Physalis angulata of Lin. N. Esen.

Misquoted by Burman for the Linnean P. pubescens, and by Roxburgh for the P. minima of Willdenow.

71. Physalis minima. Lin.

This figure has been quoted by almost every other author except Roxburgh for *P. minima*, but it does not accord with the Linnean character 'pedunculis fructiferis folio villoso longioribus.'

72. Pedalium Murex. Lin.

Dr. Hamilton has suggested that this may be a separate species, but it answers very fairly to all the specimens of *P. Murex* that I have seen.

- 73. Solanum incertum. Dunal. S. nigrum. Lour. (not Lin.)
  - Linnæus of S. nigrum says, 'In orbis totius cultis,' which habitat may have misled Loureiro; and this figure has also been mistaken by Martyn and Roxburgh for S. rubrum.
- 74. Solanum Melongena Var. N. Esen. S. esculentum. Dunal. Misquoted by Lamarck for S. insanum of Linnæus's Mantissa.
- 75. Mirabilis Jalapa of Lin. Burman's Index.
- 76. Croton polyandrum of Roxb. Ham. MS.

Burman in his Index says that this is the Croton solanifolium of the Species Plantarum, p. 1426, and of the Flora Indica, p. 205, and there is no such species in either of these works. Roxburgh's specimens of C. polyandrum, in the shape of the leaves, answer better than his description to this figure.

77. Pogostemon Heyneanum. Bentham.

Quoted erroneously by Linnæus in the Species Plantarum for Ocymum frutescens, which is Perilla Ocymoides of the Systema Naturæ, by Lamarck for O. petiolare, and for Mentha perilloides by Willdenow.

78. Achyranthes aspera of Lin. Burman.

Burman has been followed by Linnæus in the Mantissa, and in the Hortus Kewensis, as well as most other works, in quoting this figure for A. aspera and the A. obtusifolia, for which it is quoted by Lamarck, belongs to the same species. Dr. Hamilton, however, doubted whether tab. 79 may not be the Linnean A. aspera, and whether Roxburgh's A. aspera and the plant here figured (unless they belong to the A. fruticosa of Lamarck) should not be arranged separately with the name of A. cadelaria. Linnæus, to his reference to Rheede, has added another to Rumphius, which I take to be erroneous, and the latter may perhaps have misled Dr. Hamilton.

# Tab. 79. Desmochæta prostrata of D.C. Achyranthes prostrata of Lin. Burman.

Lamarck and Roxburgh, as well as Burman, have quoted this figure for A. prostrata, and, per contra, Dennstedt has queried whether it may not be the A. argentea of Lamarck. Gmelin's inaccuracies are so frequent that it would be almost endless to notice them, and instead of vol. 10, tab. 40 and tab. 69, he has referred to this figure both for Verbesina biflora and Sida radicans.

- 80. Polygonum rivulare. Roxb.
- 81. Acalypha indica. Lin.
- 82. Tragia mercurialis. Lin.
- 83. Tragia mercurialis. Var. Denn.

Quoted by Linnæus, Burman, and Roxburgh, for a variety of Acalypha indica.

#### 84. Plectranthus cordifolius. Bentham.

Quoted by Lamarck for the Linnean Ocymum polystachyon, which is said by Roxburgh to inhabit ditches and wet places, whereas Rheede has described this plant, 'nascens in arenosis,' and, as was suspected by Dr. Hamilton, it is more likely to be the O. molle of Willdenow.

#### 85. Ocymum virgatum of Thunberg. Denn.? O. sanctum. Roxb. In Burman's Index this figure is quoted for O. inodorum of the Flora Indica, but Rheede has described it 'odoris grati,' and it is quoted jointly with tab. 87 for O. basilicum by Lamarck.

- 86. Ocymum gratissimum of Lin. Burman.
- 87. Ocymum Basilicum Var. anisatum. Bentham. O. Basilicum. Lam. O. sanctum. Burman.

In the Index to the Hortus Malabaricus (with an unintelligible reference to the Flora Indica of his son) the name of O. sanctum was first used for the present plant by the elder Burman, and its being held sacred by the Brahmins is mentioned by Rheede, although other species also are said to be used in their temples. The name of O. sanctum by almost every author appears to have been given to a different species, so as to occasion much confusion; but, if retained, it belongs on the score of priority to O. Basilicum. This figure is quoted by Roxburgh for his O. villosum.

# 88. Anisomeles ovata of Hort. Kew. Bentham. Ajuga disticha. Roxb.

Quoted with a query by Dennstedt for the Linnean Nepeta amboynica, which is arranged as a variety of this species by Bentham. The A. ovata is said, in the Hortus Kewensis, to have been first introduced to this country in 1783, by John, Earl of Bute; but it appears, by the Almagestum Botanicum, p. 81, to have been cultivated at Hampton Court in the days of Plukenet.

89.

I have not met with any reference to this figure; Rheede's name for the species, equally with the foregoing tab. 6, and vol. ix. tab. 85, might lead us to suppose that it belongs to Lamarck's genus Ambulia, but it has alternate leaves, and differs essentially in other points.

Tab. 90. Anisochilus carnosum. Bentham. Plectranthus carnosus. Smith. P. stroboliferus. Roxb. Lavendula carnosa. Willd.

It is quoted erroneously by Linnæus in the Species Plantarum for Nepeta indica (instead of tab. 88?), and in the Supplementum Plantarum for N. amboinica; and though not quoted, it is the Lavendula carnosa of the latter work.

91. Leucas obliqua. Ham. MS.

Quoted by Sir J. E. Smith for L. zeylanica, for the Linnean Phlomis zeylanica by Roxburgh, and with a query for Leucas aspera by Bentham.

92. Ocymum sanctum of Lin. Mant. Smith.

Quoted with a query by Bentham for Geniosporum prostratum, and by Dennstedt for O. rugosum of Thunberg. See note on tab. 87, and Sir W. Jones's Observations on select Indian Plants, No. 52.

93. Stemodia menthastrum. Bentham.

Misquoted by Linnæas in the Mantissa, and by most other authors, for Nepeta malabarica, and in the Hortus Britannicus both for Nepeta malabarica and Anisomeles malabarica. See Bentham on the Order Labiatæ, p. 704.

94. Justicia procumbens of Lin. Burman.

Plukenet suggested that this may be his tab. 164, f. 4, and Linnæus for J. procumbens has quoted two others of Plukenet's figures, and all three are different. By Dennstedt, who is the only modern author that has noticed this figure, it is misquoted for the Linnean Ziziphors capitata, and it is by far more likely to belong to J. procumbens, which Roxburgh has described to be a very variable species.

### HORTUS MALABARICUS.

#### VOL. XI.

- Tab. 1. Anassa sativa of R. Brown. Bromelea Ananas. Lin.
  - 3. Aloe perfoliata Var. Willd. A vulgaris. Lam.
  - 4. Alpinia Cardamomum. Roxb. Amomum repens. Willd.
  - 5. Amomum racemosum. Lam. Elettaria Cardamomum. Maton.
  - Amomum Granum Paradisi. Lin. Zingiber minus. Gært.
     Linnæus has quoted this figure both for Amomum Cardamomum and for A. Granum Paradisi, and Lamark considered the latter to be nothing more than a variety of the former.
  - 7. Curcuma Zerumbet. Roxb. Amomum latifolium. Lam.
    - For C. Zedoaria Roxburgh has not referred either to this figure or to Rumphius, and, in the Asiatic Researches, vol. xi. p. 333, he says that it agrees better with C. Zerumbet than with C. Zedoaria, for which it has been quoted by Willdenow, Roscoe, and most other authors.
  - 8. Costus speciosus. Willd. Banksia speciosa. Retz. Amomum hirsutum. Lam. Tsiana speciosa. Gmelin.

Roscoe considered this to be C. arabicus, and the figure has been quoted by Linnæus with a mark of doubt for that species.

- 9. Kæmpferia rotunda. Lin.
- Kæmpferia pandurata. Roxb. K. ovata. Roscoe. Curcuma rotunda. Lin.
- Curcuma longa. Lin.
   Erroneously quoted by Ræmer and Schultes in their Mantissa for Kæmpferia pandurata.
- 12. Zinziber officinale. Roscoe. Amomum Zinziber. Lin.
- 13. Zinziber Zerumbet. Roscoe. Amomum Zerumbet. Lin.
- 14. Alpinia Allughas. Roscoe. Hellenia Allughas. Willd. Heritiera Allughas. Retz.
- 15. Aponogeton monostachyon. Lin. Sup. Saururus natans. Lin. Mant.

Tab. 16. Calla calyptrata of Roxb.?

Misquoted by Dennstedt for the Arum macrorrhizon of Linnæus.

- 17. Arum minutum. Willd.
- 18. Arum campanulatum. Roxb. A. Rumphii. Gaudichaud.
  - In Burman's Index tab. 19 is mistaken for the Linnean Dracontium polyphyllum, and Dennstedt has fallen into the same error with regard to tab. 18, and has arranged tab. 19 as a separate species, under the name of D. Pæoniæfolium.
- 20. Arum divaricatum. Lin.
- 21. Arum gracile. Roxb.

Misquoted by Gærtner and others for Tacca pinnatifida, and by Dennstedt for Arum pentaphyllum of Linnæus, and Burman, in his Index, has called it 'Podophyllum trilobum of the Sp. Plant. p. 723.'!

22. Caladium nymphæfolium. Vent.

Roxburgh doubts whether it is more than a large aquatic variety of Arum Colocasia.

- 23. Caladium ovatum, Willd. Arum ovatum, Lin.
- 24. Sphenoclea Zeylanica of Gært. Willd. Gærtnera Pongati. Retz. Pongatium indicum. Lam.
- 25. Plectranthus rotundifolius. Bentham. Nepeta madagascariensis. Lam.
- Nymphæa pubescens of Willd. Castalia sacra. Salisbury. Castalia pubescens. Rees's Enc.

Misquoted in Browne's Jamaica, and by Linnæus, Burman, Willdenow, Poiret, and Roxburgh, for Nymphæa Lotus.

- 27. Nymphæa stellata. Willd. N. malabarica. Poiret. Castalia stellaris. Salisbury.
- 28. Villarsia indica. Vent. V. macrophylla. Wight. Menyanthes indica. Lin.
  - M. indica of the Bot. Mag. t. 658, for which Dr. Sims has quoted this figure, is quite a different species, and is the V. Simsü of Don's Dictionary.
- 29. Villarsia cristata. Ham. MS. Menyanthes cristata. Roxb. Dennstedt has queried whether it is distinct from M. nymphoides.
- Nelumbium speciosum Var. Willd. Nelumbium Tamara.
   Hort. Brit. Nelumbo nucifera. Gært. N. indica.
   Persoon.
- 31. Nelumbium speciosum. Willd. Nelumbo indica Var. Persoon. Nymphæa Nelumbo. Lin. Cyamus Nelumbo. Smith. C. mysticus. Salisbury.
  - Dr. P. Browne has quoted the foregoing tab. 30 for a Jamaica plant, which is the N. Jamaicense of De Candolle, and it has misled Linnæus under the name of N. Nelumbo to confound the two species together.
- 32. Pistia stratiotes. Lin.

Both Browne and Plumier have quoted this figure for an American Pistia, and Linnæus has followed in considering them to be the same species. Plukenet has repeated an observation of Commelines, 'Experientia enim nos docuit, quam plurimas Indiæ orientalis Plantas etiam in America reperiri,' and this opinion has been often acted on without sufficient care. It is a curious coincidence that Pistia has been accidentally omitted in the Index to the Species Plantarum, and that the genus is wholly unnoticed by Steudel.

## Tab. 33. Trapa bispinosa. Roxb.

Linnæus, Willdenow, and Lamarck have quoted this figure for the European T. natans, and it is more nearly allied to T. bicornis of the Supplementum Plantarum. The description of the latter has been obviously taken from a plant mentioned in Osbeck's Voyages, which he gathered in China, and the reference to Plumier is copied from a quotation of Osbeck's, and is probably erroneous.

34. Phrynium capitatum. Willd. Phyllodes placentaria. Lour. Pontaderia ovata. Lin.

By the younger Linnæus this figure has been referred to for Myrosma cannæfolia, by other authors for Maranta allovia, and by Gmelin for both of these, and for Pontaderia ovata also!

- 35. Geodorum dilatatum. Lindley. Malaxis cernua. Willd. Limodorum densiflorum. Lam. Limodorum nutans. Roxb. Cistella cernua. Blume.
- 36. Wolfia spectabilis. Denn.

I have not met with any reference besides Dennstedt's to this figure, and it may probably belong to the Scitamineæ.

- 37. Pardanthus Chinensis. Blume. Moræa Chinensis. Willd. Ixia Chinensis. Lin.
- 38. Crinum defixum. Ker. C. asiaticum Var. Burman. Amaryllis vivipara. Lam. Bulbine asiatica. Gært.

Though Linnæus in the Mantissa has added this figure to the synonyms of *C. asiatica*, yet the *Radix toxicaria* of Rumphius, which is quoted in the Species Plantarum, is more properly the Linnean species. Roxburgh has however retained the name of *C. asiatica* for the present plant, and given that of *C. toxicaria* to the latter.

- 39. Crinum latifolium. Lin. Amaryllis latifolia. Lam.
- 40. Pancratium verecundum. Ker.

Misquoted by Linnæus, and in the Encyclopedie Methodique for *P. zeylanicum*, and the figure answers better to Ker's description in the Transactions of the Horticultural Society, but has the segments of the corol more ovate than is usual in *P. verecundum*. By Steudel it is erroneously said that *P. verecundum* and the Linnean *P. maritimum* are the same.

- 41. Kæmpferia Galanga. Lin. Alpinia sessilis. Retz.
- 42. Sanseviera lanuginosa. Willd.. Salmia ebracteata. Cav. Aletris Zeylanica Var. Lam.

Quoted with a mark of doubt by Linnæus for Aletris hyacinthoides, and by Roxburgh for Sanseviera zeylanica, which is another name for the same species; nor has the claim of S. lanuginosa to be placed separate been at all satisfactorily established.

#### Tab. 43. Canna indica. Lin.

Dr. Hamilton thinks that this plant, which is C. indica of Roxburgh, is distinct from the Linnean species, and has proposed Sarana for its specific name. If there is more than one East Indian Canna, it however appears to me, from the references in the Flora Zeylanica, that this plant of Rheede's has the best claim to be called C. indica.

44. Pontederia vaginalis. Lin. Mant.

Quoted by Linnæus in the Spec. Plant. for P. hastata, but the error is corrected in the Mantissa.

- 45. Sagittaria obtusifolia. Lin.
- 46. Damasonium indicum. Willd. Stratiotes alismoides. Lin. Ottelia alismoides. Persoon.
- 47. Aeginetia indica. Willd. Orobanche Æginetia. Lin.
- 48. Acorus Calamus. Lin.

It may be A. Calamus without fructification, and Roxburgh says that the species is common in gardens throughout India.

- 49. Ipomæa paniculata. Bot. Reg. Convolvulus paniculatus. Lin. Batatas paniculata. G. Don.
- Ipomæa grandiflora. Roxb. Calonyction Roxburghii.
   G. Don..

Quoted erroneously by Linnæus in the Sp. Plant. for Ipomæa Bona Nox., and some authors consider it to be distinct from the C. grandiflorus (i.e., Ipomæa grandiflora of Lamarck), for which it is quoted in the Supplementum Plantarum. It is certainly the I. grandiflora of Roxburgh, and I think of the Botanist's Repository also.

- 51. Ipomæa malabarica. R.&S. Convolvulus malabaricus. Lin. Argyreia malabarica. G. Don.
- 52. Ipomæa aquatica. Poiret. Convolvulus repens. Roxb. (not Lin.)

C. repens of the Species Plantarum, for which it has been quoted by Linnæus, is most probably an American, and at all events an uncertain species.

53. Ipomæa sepiaria. Roxb. Convolvulus maximus. Lin. Convolvulus marginatus. Lam.

This figure is quoted in the Hortus Britannicus for *I. sepiaria* and also for *C. maximus*, and erroneously in Don's Dictionary both for the Linnean *I. reptans* and *I. sepiaria*.

- 54. Convolvulus Bentira. Ham. MS. C. Rheedii. Wallich?
  - Quoted by Mr. G. Don for Aniscia uniflora, and by Dennstedt for the C. emarginatus of Vahl, which is the C. uniflorus of Burman and of the Encyclopedie Methodique; but the leaves, as described and figured by Burman, are quite different.
- 55. Ipomæa sagittæfolia. Burman. I. hastata of Lin. Mant. Lam. Convolvulus Sonneratii. Rees's Cyc.
  - Quoted by Linnæus, Roxburgh, and several other authors, for Convolvulus medium, but it answers far better to the Linnean I. hastata, and it is referred to by Romer and Schultes for the I. denticulata of Brown, and by G. Don for the I. flicaulis of Blume, which may possibly be nothing more than varieties.

- Tab. 56. Ipomæa campanulata. Lin.
  - Ipomæa maritima of Brown. R. & S. Convolvulus Pes Capræ. Lin.

Quoted by Lamarck for a variety of his Convolvulus maritimus, which is a species at least nearly allied to our English C. Soldanella.

- Ipomæa Beladamboe. R. & S. I. repens. Lam. I. rugosa. G. Don. Convolvulus flagelliformis. Roxb.
  - I. repens of Roth is a different species, and Dennstedt has no ground for his suspicion that Rheede's plant is the I. verticillata of Vahl.
- 59. Ipomæa Pes Tigridis. Lin.
- 60. Ipomæa Quamoclit. Lin. Convolvulus pennatus. Lam. Quamoclit vulgaris. G. Don.
- 61. Ipomæa speciosa. R. & S. Convolvulus speciosus. Lin. Sup. Convolvulus nervosus. Lam. Lettsomia nervosa. Roxb. Argyreia speciosa. G. Don.
- 62. Cocculus orbiculatus. D.C. Menispermum orbiculatum of Lin. Burman.

This imperfect figure, without either flower or fruit, has been quoted for Willdenow's Cissampelos convolvulacea by Roxburgh, who says that the Linnean Menispermum orbiculatum is the same species, and De Candolle suspects that the latter may be a Cissampelos, but it does not well answer to Willdenow's description of the former. By Wight and Arnott the Linnean M. orbiculatum and M. cocculus are considered to be the same species, and they have quoted this figure jointly with vol. vii. t. 1, for Cocculus suberosus.

63.

Plukenet considered it to be his Hedera baccifera, tab. 416, f. 3, and no modern author has quoted this imperfect figure. It was thought by Dr. Hamilton to be either a Thoa or a Gnetum; but it has been suggested to me by Professor Don, that it is more nearly allied to the Incarvillea parasitica of Roxburgh, and it may probably belong to the genus Æschynanthus of Dr. Jack.

- 64. Evolvulus alsinoides. Lin.
- 65. Ipomæa tridentata. R. & S. Convolvulus tridentatus. Willd, Evolvulus tridendatus, Lin.

# HORTUS MALABARICUS.

#### VOL. XII.

- Tab. 1. Saccolabium guttatum. Lindley. Aerides retusum. Willd. Epidendrum retusum. Lin.
  - 2. Saccolabium præmorsum. Lindley. Aerides præmorsum. Willd.
  - 3. Vanda spatulata. Lindley. Limodorum spatulatum. Willd. Epidendrum spatulatum. Lin.

Quoted by Mons. Richard for his Angræchum polystachyum, which he considered to be the Linnean E. spatulatum.

- 4. Saccolabium papillosum. Lindley. Aerides undulatum. Smith. Cymbidium præmorsum. Willd. Epidendrum præmorsum. Roxb.
  - Misquoted by Linnæus for his Epidendrum furvum, which is Vanda furva of Lindley.
- 5. Cymbidium tenuifolium. Willd. Epidendrum tenuifolium. Lin.
- 6. Cymbidium tenuifolium Var. Denn.
  - Of this plant Rheede says that it is similar to the preceding tab. 5, 'nisi quod nunquam floreat, et folia paulo longiora, latiora et rigidiora sunt.'
- 7. Cymbidium ovatum. Willd. Epidendrum ovatum. Lin.
- 8. Cymbidium aloifolium. Willd. Epidendrum aloifolium. Lin. Epidendrum aloides. Bot. Mag.
- 9. Arum viviparum. Roxb.
- 10. Hemionitis trinervis. Ham. MS. Asplenium Arifolium. Burman.
- 11. Polypodium quercifolium. Lin.
- 12.
- Is mentioned by Swartz, in Schrader's Journal, as an undescribed species of Acrostichum, and has been quoted erroneously by Burman for the Linnean Polypodium dissimile, and by Dennstedt with a query for the P. tricuspe of Swartz. Professor Don considers it to be the West Indian P. aureum of Linnæus, and the frond which Rheede has figured being barren, may account for some difference in its appearance.

#### Tab. 13.

Quoted generally for the lower part of the foregoing tab. 12, which Rheede considered it to be, and from the prickles Professor Don thinks that it is much more probably the Caudex of a Zalacca or Calamus.

- 14. Lycopodium Phlegmaria. Lin.
- 15. Diplazium malabaricum. Blume. D. denticulosum. Gaudichaud. Asplenium ambiguum. Swartz.

Asplenium heterophyllum of Roxburgh's Hortus Bengalensis is probably the same species.

16. Asplenium alternifrons. Aspidium alternifrons. Denn.

Considered to be an undescribed Asplenium both by Swartz and Dr. Hamilton.

- 17. Polypodium obtusum. Ham. MS.
  - Quoted by Linnæus and others for *Polypodium parasiticum*, and for *Aspidium parasiticum* by Willdenow, but the accuracy of this reference has been denied by Dr. Hamilton as well as Blume.
- 18. Asplenium falcatum. Lam. Trichomanes adiantoides of Lin. Burman.

Quoted with a query by Blume for his Asplenium canaliculatum, which is very nearly allied to A. falcatum of Lamarck, but A. falcatum of Thunberg is another species.

- 19. Acrostichum flagelliferum. Wallich.
- $\begin{bmatrix} 20. \\ 21. \end{bmatrix}$  Pothos pertusa. Roxb.

Misquoted by Burman for his Polypodium laciniatum.

22. Epidendrum sterile. Lam.

Rheede has not noticed the infloresence either of this plant or of tab. 23, and it is almost impossible to ascertain the species of Bolbophyllum to which they belong.

23. Epidendrum sterile Var. Lam. Dendrobium reptans? Swartz.

Is obviously a Bolbophyllum. See the foregoing note on tab. 22.

- 24. Pholidota imbricata. Lindley. Cymbidium imbricatum. Willd.
- 25. Eulophia virens of Lindley. Limodorum virens. Roxb.

Rheede never saw the flower, and it is an uncertain figure.

- 26. Eulophia carinata. Lindley. Limodorum carinatum. Willd. Limodorum variegatum. Lamarck.
- 27. Microstylis Rheedi. Lindley. Malaxis Rheedii. Willd. Epidendrum resupinatum. Forster.
  - Dr. Lindley suspects that Crepidium Rheedii of Blume is the same species.
- 28. Liparis odorata. Lindley. Malaxis odorata. Willd.

Tab. 29. Niphobolus carnosus. Blume. Acrostichum heterophyllum. Lin.

Quoted by Willdenow for Polypodium adnescens, for Cyclophorus adnescens by Desrousseaux, for Nothochlæna piloselloides (i. e., Pteris piloselloides of Lin.) by Kaulfuss, and in the Hortus Britannicus for Niphobolus adnescens, but is said to be a distinct species by Blume.

- 30. Tragia colorata? Lam.
  - Of T. colorata Poiret says, 'Cette plante a de tres grands rapports avec la figure de Rheede; mais les feuilles y sont representées aigues; les Echantillons que I'ai observes dans l'Herbier de M. Lamarck ont tous les feuilles obtuses.'

    It has been suggested by Dr. Hamilton, that it may represent the branch of a tree with a parasite growing on it like Ivy.
- 31. Aspidium splendens. Willd. Polypodium punctulatum. Poiret.

The P. punctulatum of Vahl appears to be quite a different species.

32. Lygodium flexuosum. Swartz. Ophioglossum flexuosum. Lin.

This figure has been quoted by Willdenow for his Hydroglossum flexuosum, which is said by Swartz to be a different species.

33. Lygodium pinnatifidum. Swartz. Hydroglossum pinnatifidum. Willd.

Misquoted by Linnæus (instead of 34?) for Ophioglossum scandens, and by Gmelin for Acrosticum lanceolatum.

34. Lygodium scandens, Swartz. L. microphyllum. Blume. Hydroglossum scandens, frons sterilis. Willd.

This figure in the Hortus Bengalensis is quoted for Ophioglossum filiforme, and for Osmunda scandens by Gmelin.

- 35. Lomaria scandens, frons sterilis. Willd. Onoclea scandens.

  Poiret. Pteris scandens. Roxb. Polypodium palustre,
  Var. Burman.
- 36. Limnophila gratioloides of Brown. Smith. Hydropityon pedunculatum. D.C. Columnea balsamica. Roxb. Hottonia indica. Lin.

Misquoted by Gærtner for Hydropityon Zeylanicum, which differs in having the flowers sessile and decandrous; whereas Rheede has described this plant with only two stamens; and in Don's Dictionary it is quoted both for H. pedunculatum and for L. gratioloides. It is the L. trifida of Sprengel, and is generally considered to be the Gratiola trifida of Willdenow, although Willdenow, for that species, has quoted vol. ix. t. 85, instead of this figure.

37.

Dillenius has noticed the affinity of this moss with Bryum punctatum, and I cannot find any species which answers to it either in Hooker's Musci Exotici or Botanical Miscellany.

38. Isolepis squarrosa of Brown. R. & S. Scirpus squarrosus. Lin. Mant.

The reference in the Mantissa for S. squarrosus is singularly erroneous, but there can be no doubt that t. 38 was intended. This figure is quoted with a query by Burman for S. capillaris of the Species Plantarum, and Linnæus has altered the description of that species in the Mantissa. *Isolepis squarrosa* of Carmichael in the Linnean Transactions, vol. xii., is another species, and the name has been changed by Schultes to *I. acugnana*.

Tab. 39. Lycopodium cernuum. Lin.

Rheede's descriptions of tab. 39 and 40 are wrongly numbered, and that marked 40 belongs to this plate, and vice versa.

- 40. Adiantum lunulatum. Burman & H. & G. Pteris lunulata. Roxb.
- 41. Eragrostis plumosa of Schultes. Poa plumosa of Retz. Roxb.

Quoted by Linnæas both for Panicum patens and Poa tenella, and by Rœmer and Schultes for Eragrostis tenella, to which it is nearly allied.

42. Cyperus elatus of Lin.? Rotboll. C. venustus of R. Brown. Wight.

Misquoted by Vahl for his *C. canescens*, and by Roxburgh for the *C. alopecu-roides* of Rotboll, which was considered by Willdenow to be the Linnean *C. glomeratus*.

43. Andropogon aciculatum of Retz. Roxb.

Quoted by Burman for the Linnean Scirpus corymbosus, and by Vahl for his Rhynchospora aurea, which is probably the same species.

44. Paspalum longiflorum of Retz. Roxb.

Mistaken by Dennstedt for the Linnean Andropogon muticum.

- Digitaria malabarica. R. & S. Syntherisma malabarica. Swartz. Festuca indica. Retz. Melica diandra of Roxb. Poa malabarica of Lin.
  - It is quoted with a query by Lamarck for his *Panicum miliars*, and by Ræmer and Schultes both for *D. malabarica* and for *F. indica*; and Sprengel's *Diplachne indica* may probably be the same species.
- 46. Saccharum exaltatum. Roxb.

Roxburgh considered it to be this species rather than S. spontaneum, for which, or as Imperata spontanea, it has been quoted by Linnæus and most other authors, except Burman, who mistook it for the Linnean Panicum alopecuroideum.

47. Panicum Dactylon of Roxb. (not Lin.) Agrostis linearis of Kænig. Sir W. Jones.

Although it is not quoted either by Retz or Roxburgh, there can be no doubt that this 'Durba' 'plurimis ceremoniis in religione Bramannum celebratur' is the A.linearis of the former and P. Dactylon of the latter; and we have the authority of Mr. Lambert (in Lin. Trans. vol. vii.) for considering P. Dactylon to be a native of the East Indies as well as of Great Britain; the fructification however appears to me to differ materially in our Cornish plant, and Sir W. Jones says, that 'its flowers, in their perfect state, are among the loveliest objects in the vegetable world, and appear, through a lens, like minute rubies and emeralds in constant motion from the least breath of air.' This figure is quoted with a query for Paspalum africanum by Poiret.

48. Scleria lithosperma. Willd. Scheenus lithospermus. Lin.

Misquoted by Poiret for Scleria Flagellum, and by Linnæus this West Indian negro scourge has been confounded with Rheede's plant, under the name of S. lithospermus.

#### Tab. 49. Ischaemum muticum. Lin.

50. Cyperus rotundus of Lin.

Quoted by Roxburgh, and with a query by Rotboll, for *C. procerus*, but it answers better to the *C. hexastachyos* of Rotboll, and to the figure and description of Scheuchzer's, which Linnæas has quoted for *C. rotundus*. By Dennstedt it is referred to with a query for the *C. Pangorei* of Retz.

- Chloris barbata. Roxb. Andropogon barbatum of Lin. Mant. Lam.
- 52. Kyllinga triceps. Rotboll. K. tricephala. St. Hil. Schenus tuberosus. Burman.
- 53. Kyllinga monocephala. Rotboll. Schænus coloratus Var. Lin.
  - In Sir W. Jones's copy this plate is marked Schænus niveus, and it is quoted by Poiret for the Linnean S. niveus; on the other hand, in General Hardwick's copy, it is marked S. cephalotes of Lin. According to Muhlenberg, K. monocephala has been found as far north as New Jersey, and he has also described K. triceps to be a native of the United States, but they are both treated as tropical plants in the stoves at Kew.
- 54. Cyperus pygmæus of Vahl. Wight. Cyperus diffusus. Roxb. Cyperus mulenpulla. R. &. S.

Either as a Scirpus or a Fimbristylis it is misquoted by Rotboll, and most other authors, for S. argenteus; but Poiret (Enc. Meth. Sup. v. p. 90) says that it is not S. argenteus, but S. monander of Rotboll. It is the Cyperus musarius of Hamilton's MS., who doubted whether Roxburgh's C. diffusus is the same species.

55. Cyperus ventricosus. R. Brown.

Quoted erroneously by Rotboll for the Linnean C. ligularis, and by Dennstedt with a query for C. racemosus of Retz.

- 56. Cyperus inundatus of Roxb.
  - In all probability Linnaus described a Chinese plant of Osbeck's, and, from their general similarity, quoted the present figure and Plukenet's t. 191, fig. 7, (which Plukenet himself had arranged separately), and then gave Rheede's name, Ira, to the species. Roxburgh also has quoted both these figures, but with a remark that Plukenet's answers best for his C. Iria; and, as suggested by Dr. Hamilton, this plant of Rheede's may probably be his C. inundatus.
- 57. Andropogon Iwarancusa of Roxb. Ham. MS. A. scheenanthus Var. Lam.
  - A. Iwarancusa is supposed by Roxburgh to be the plant described by Sir Gilbert Blane, with the name of Spikenard, in the Philosophical Transactions, vol. lxxx., and probably Sir Gilbert may have erred in saying that 'it is not to be met with among the many hundreds of plants delineated in the Hortus Malabaricus.' The Spikenard of the ancients is however shewn by two papers from Sir W. Jones, and a third from Dr. Roxburgh, in the Asiatic Researches, to be one of the Valerianeæ, i. e. Nardostachys Jatamansi of Don's Dictionary.
- 58. Hypolytrum giganteum of Wallich. Wight. Schoenus nemorum. Vahl.

This figure is quoted with a query by Rotboll for Fuirena umbellata, and Vahl of S. nemorum says, 'A Schoenis differt calyce bivalvi intra squamam; a Ma-

chaerina setarum defectu et habitu; a Hypaelyptis paleis persistentibus et habitu diversissimo; forte rectius proprii generis.' Dr. Wight says that it is the *Tunga diandra* of Roxburgh, and the *Hypoelytrum nemorum* which Beauvais has figured for Vahl's *S. nemorum* is probably another species.

## Tab. 59. Curculigo orchioides. Roxb.

In General Hardwick's copy this plate is marked 'Scilla radicans.'

#### 60. Zizania terrestris. Lin.

Sir J. E. Smith has remarked that Linnæus described his Zizania terrestris from the Hortus Malabaricus alone, and all the other descriptions that I have met with have been equally borrowed from Rheede.

#### 61. Panicum miliaceum of Lin.

Dr. Hamilton doubted whether it may not be the P. ramosum of Linnæus's Mantissa.

#### 62. Perotis latifolia. Hort. Kew. Saccharum spicatum. Lin.

Linnæus has throughout quoted this figure of Rheede's for his Saccharum spicatum, and supposing that another plant may, in the first edition of the Species Plantarum, have been intended, there can be no doubt that S. spicatum of other editions is the Perotis latifolia, but this figure has been erroneously quoted by Burman for his S. spicatum, which is quite different, and is the S. spicatum of Smith; the former is tab. 119, fig. 1, and the latter is tab. 92, fig. 5, of Plukenet's Phytographia. In the Flora Zeylanica, Plukenet, t. 119, f. 1, is also quoted for Anthoxanthum indicum, and though Linnæus afterwards omitted this reference, his A. indicum and S. spicatum are probably synonymous.

# 63. Mariscus umbellatus. Vahl. Kyllinga umbellata. Rotboll.

This figure answers almost equally to M. umbellatus and M. cyperinus of Vahl, and it is quoted for the latter by Dr. Wight.

# 64. Calamus gracilis. Roxb. C. petræus of Lour. Poiret.

Quoted by Linnæus, Burman, Willdenow, and Dennstedt for C. Rotang, but it has more the appearance of Willdenow's C. equestris.

# 65. Calamus Scipionum of Loureiro.? Poiret.

Roxburgh, in the Hortus Bengalensis, has quoted this figure for his *C. latifolius*, but the reference is omitted in the Flora Indica, and t. 66 answers better to it. It is misquoted by Dennstedt for the *C. niger* of Willdenow, and by no means accurately accords with Loureiro's description of *C. scipionum*.

# 66. Calamus latifolius of Roxburgh.

Mistaken by Dennstedt for the C. viminalis of Willdenow.

## 67. Scheenus paniculatus. Burman.

In the Herbarium Amboinense this is said to be the Carex amboinicus of Rumphius, vol. vi. t. 8, f. 1, although they have a different appearance, and both these figures are quoted by Burman in the Flora Indica for his S. paniculatus, which is a very uncertain species. It is referred to with a query by Rotboll for S. Surimanensis.

#### 68. Eriocaulon setaceum. Lin.

## 69. Cynosurus Cavara. Ham. MS.

Under that generical name, or of Eleusine, most authors have followed Linnæus in quoting this figure for his Cynosurus indicus; and either as an Eleusine, or

Dactyloctenium, it is quoted by others for the Linnean C. Ægyptius, and it is referred to in Rees's Cyclopædia for both. Of these two it is most nearly allied to the latter; but Dr. Hamilton considered it, and I think rightly, to be a separate species.

- Tab. 70. Coix Lachryma. Lin.
  - 71. Isolepis articulata. Wight. Scirpus articulatus. Lin.
  - 72. Andropogon Schænanthus of Lin. Roxb. A. Schænanthus Var. Lam. Cymbopogon Schænanthus. Sprengel.

To Rheede's imperfect figure of this interesting species, Wallich's tab. 280 presents a splendid contrast.

- 73. Arundo Karka of Retz and Roxburgh. Trichoon Karki of Roth. (Cat. Bot.)
- 74. Polypodium acrostichoides. Swartz.? Acrostichum lanceolatum. Lin.?

Quoted by Linnæus and others for A. lanceolatum, and by Swartz and Willdenow for P. acrostichoides, which, according to Blume, are two different species of Niphobolus, and from the Synomyns of both he has excluded the present figure. As suggested by Dr. Hamilton it may probably be a species of Vittaria, allied to the V. revoluta of Don's Prodromus.

75. Spinifex dioicus. Ham. MS.

Linnæus, in the Mantissa, has been apparently misled by Rumphius to quote this figure for his Stipa spinifex (i.e. Spinifex squarrosus of the Supplement), and it is also quoted erroneously by Burman for his Stipa littorea. On the other hand, Osbeck has quoted it for a plant which he gathered on the river side near Canton, and which he considered to be the Linnean Cyperus Haspan.

76. Polygonum rivulare. Roxb.

Quoted by Linnæus and others for *P. orientale*, but the leaves are not sufficiently ovate for that species; and it is said by Dennstedt, on what grounds I know not, to be the *P. barbatum of Gmelin*.

- 77. Polygonum glabrum of Willd. Roxb.
  - Misquoted by Linnæus, Burman, and Willdenow, for P. barbatum, and by Dennstedt for the Linnean P. orientale.
- 78. Eleusine coracana. Persoon. Cynosurus coracanus. Lin.
- 79. Holcus spicatus of Lin. Burman. Pennisetum spicatum. Persoon.?

Quoted with a query by Dennstedt for *Panicum italicum*, and Roxburgh, who considered his *P. spicatum* to be the Linnean *H. spicatus*, has followed Linnæus in quoting Plukenet, tab. 32, fig. 4, which has a more compact and cylindrical spike than is here represented.



#### OMISSIONS IN VOL. IV.

Tab. 22. (Add as synonymous) Munchausia ovata. St. Hil.

Tab. 33. (Add as a note).

Misquoted by Poiret, in his Supplement to Lamarck's Illustrations, for Hardwickia binata of Roxburgh.

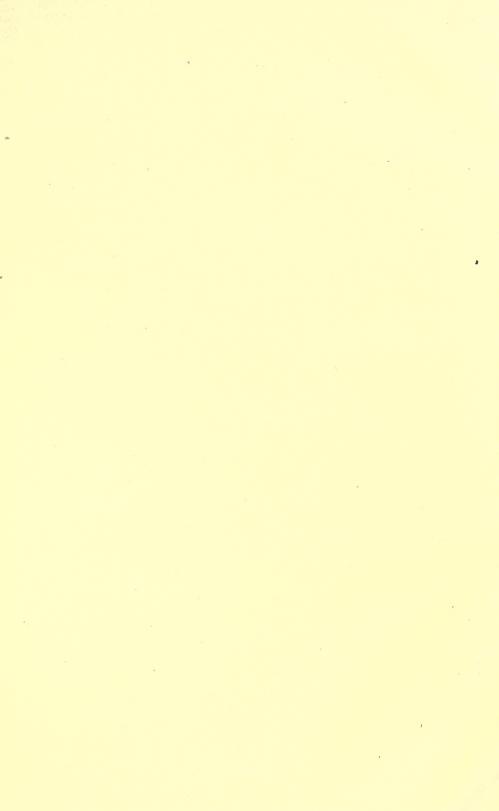
## ERRATA.

Vol. v. t. 32. For Caturus specifiorus, read spicifiorus. 48 and 52. For Gomphia augustifolia, read angustifolia.

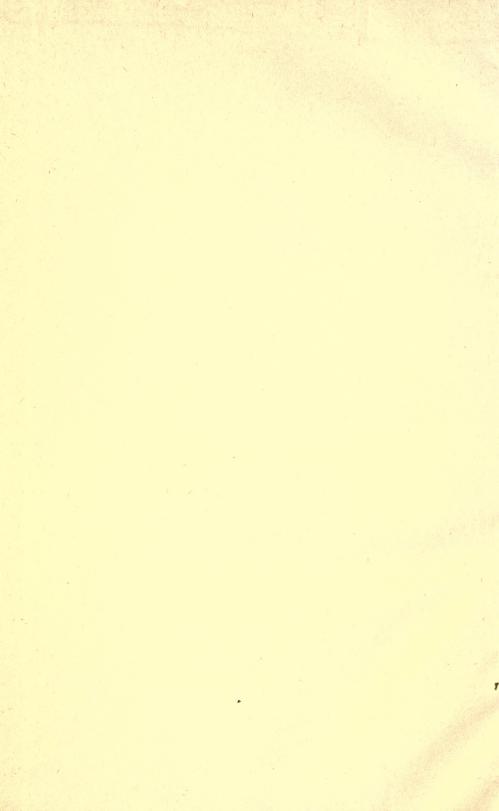
vi. t. 28. For Apama siluosa, read siliquosa.

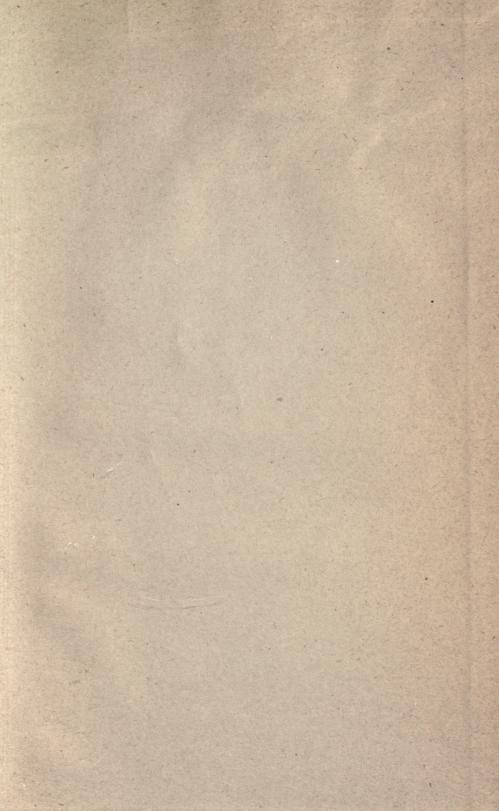
x. t. 48. For Tiaridium velutinnm, read velutinum.

xi. t. 34. For Pontaderia, read Pontederia.









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